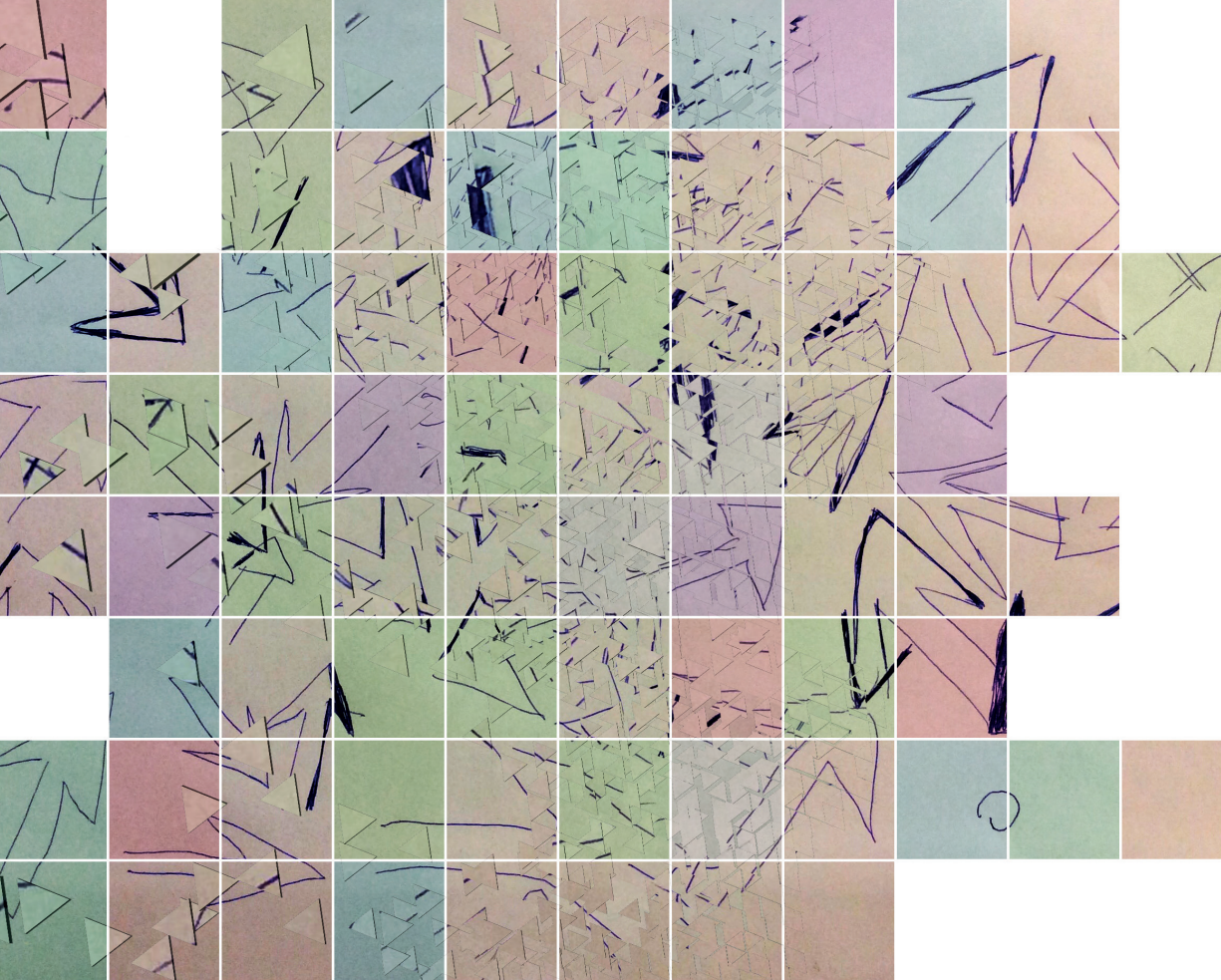
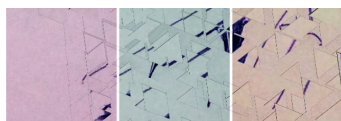




Dynamics *of Class and Stratification* *in Poland*

Irina Tomescu-Dubrow
Kazimierz M. Słomczyński
Henryk Domański
Joshua Kjerulf Dubrow
Zbigniew Sawiński
Dariusz Przybysz

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STRATIFICATION IN POLAND

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of the Polish Academy of Sciences



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PREFACE

Dynamic Class and Stratification in Poland

*Irina Tomescu-Dubrow, Kazimierz M. Słomczyński, Henryk Domański,
Joshua Kjerulf Dubrow, Zbigniew Sawiński, and Dariusz Przybysz*

This is a book about long-term changes to the social structure. Ours is an empirical work focused on class and stratification in Polish society and based on survey data from the State Socialist era to the early 21st century. In addition to our own analyses, we summarize the best quantitative research published in Polish and English since World War II. This book is the first of its kind; no other work, in Polish or English, has linked Poland's State Socialist past with the present using survey data on class and inequality.

We wrote this book because we feel there are valuable lessons to be learned from linking past to present. Classic issues of class, stratification, mobility, and attainment have endured decades of radical social change. These concepts remain valid even when society tries to eradicate them. The theories retain their explanatory power, though the details shift with the times. Most contemporary class and stratification studies do not age well, as scholars tend to forget that what they are studying has, empirically speaking, deep historical roots. While some would be eager to shed the classic issues of the past to forge what they believe is a new path, this book is a reminder that history continually informs the present.

The book has many co-authors, all of whom have worked together for years at the Institute of Philosophy and Sociology of the Polish Academy of Sciences. Some of the authors are new, and some have been pioneers of this research since the 1970s and 1980s. All focus their research on class and inequalities of various kinds. This book is a collaborative endeavor.

We, the authors, rely on the untold hours of the labor of scholars and students from the distant past to the present day who painstakingly studied and observed class and inequality in Poland. We owe them a debt of gratitude.

It would be impossible to name everyone who, over the decades, contributed to the work that built this book. We would like to single out a few of the major scholars and note that they, too, had legions of researchers and scholars who helped them. First of all, we thank Włodzimierz Wesołowski, who started, a half-century ago, a series of studies on social stratification and mobility in Polish cities; these studies, based on representative samples of the adult urban population, became a model for research in subsequent decades. Krystyna Janicka was involved in these studies almost from the beginning, with Wojciech Zaborowski and Bogdan Mach joining the team some years later. Their work is essential for this book.

This book has been prepared in the framework of the Cross-national Studies: Interdisciplinary Research and Training Program (CONSIRT), established by the Ohio State University (OSU) and the Polish Academy of Sciences (PAN), housed in the OSU Department of Sociology and the Institute of Philosophy and Sociology of PAN (IFiS PAN). We thank these institutions for their support.

A portion of this work has its roots in the Polish-language book *Zmiany stratyfikacji społecznej w Polsce* [*Changes to Social Stratification in Poland*] edited by Henryk Domański and published in 2008 by IFiS Publishers. We thank IFiS PAN and its director, Andrzej Rychard, for supporting our book.

Since this book relies on survey data, we are thankful for the work of survey administrators, interviewers, and respondents. Most of the survey materials were gathered by the Center for Fieldwork of Sociological Research at the Institute of Philosophy and Sociology of the Polish Academy of Sciences, directed by Paweł Sztabiński and Franciszek Sztabiński. We thank Zbigniew Karpiński for his advice on the class voting analyses.

This book contains data analyses on the Polish Panel Survey POLPAN 1988–2013, whose most recent wave is supported by a Maestro grant from the (Polish) National Science Center (NCN, 2011/02/A/HS6/00238). The final version of this book is made possible through this grant; we acknowledge NCN involvement. We also thank the new generation of scholars who are involved in the POLPAN study and assisted, directly or indirectly, in preparing this book: Danuta Życzyńska-Ciołek, Marcin Zielinski, Ilona Wysmulek, Kinga Wysieńska-Di Carlo, Olena Oleksiyenko, Malgorzata Mikucka, Marta Kołczyńska, Anna Kiersztyn, Ewa Jarosz, and Katarzyna Andrejuk.

Introduction

*Irina Tomescu-Dubrow, Kazimierz M. Słomczyński, Henryk Domański,
Joshua Kjerulf Dubrow, Zbigniew Sawiński, and Dariusz Przybysz*

This book is about changes to the social structure in Poland from the State Socialist era to the present. We focus on class and stratification, two key facets of the social structure that best explain, as Gerhard Lenski (1966) famously put it, “who gets what and why.”

Our core concepts are rooted in the classic sociological literature on class and stratification in Poland and abroad. We define class as occupationally based groups that maneuver within economic markets. Classes principally revolve around ownership relations and control over labor, including skills. Defining stratification as structured inequality with respect to scarce and valued resources, we distinguish two major dimensions. The primary dimension consists of formal education, occupational rank, and job income. The secondary dimension deals with standard of living: housing conditions, possession of durable goods, and various symbols of social status related to lifestyles. The primary dimension determines the secondary. We focus on the primary dimension.

Dynamic social structure raises the question: if stratification refers to enduring inequalities, how are social stratification structures simultaneously stable and dynamic? We argue that even during extreme societal transformations, key features of social life, especially class, have long-lasting, stratifying effects. Similarly, mechanisms of differentiation embedded in class and stratification, such as mobility and attainment, are potent explanations for how inequalities structure and restructure.

To analyze the relationship between class and stratification, we present a major theoretical framework that Polish sociology helped to initiate and refine. The main thesis of what we call the Warsaw School of studying class and stratification is that social class and social stratification should always be treated as analytically distinct, though related, phenomena. Classes, as groups that, to varying extents, control various resources important for the functioning of different markets, exert a strong influence on social inequalities. At the same time, class relationships shape the attitudes, behaviors, and fortunes of individual class members. This approach, while undoubtedly rooted in, and influenced by, Western sociology, was initiated during the State Socialist era and continually refined since. The Warsaw School was initially designed to explain problems of Polish society decades ago. It has since proven useful to explain post-communist society and beyond, including the European Union era and the aftermath of the latest global economic crisis. The Warsaw School provides a useful framework that has clear implications beyond Poland and beyond State Socialist and post-communist societies. It applies to any modern political and economic system in which classes are formed and inequalities endure.

Main Research Questions

To explain how the relationship between class and stratification changed through time, we present theoretical and empirical analyses that deal with the following main research questions:

Class and stratification: What has been the impact of the economic and political system in different periods on the class structure? How does the relationship between class and stratification change over time?

Social mobility and attainment: How did the relationship between social origins and social destinations change over time? How did radical social change impact class mobility and educational attainment?

Occupational differentiation: What is the role of occupational differentiation in maintaining social inequality? Is the occupational hierarchy stable over time?

Class analyses: To what extent does the relationship between class and stratification differ for men and women? How has class aligned with political behavior since 1989?

Dynamic Social Structure

For the last 100 years, Poland has experienced ongoing radical social change. In the early 1920s, Poland re-emerged on the world scene, by force and through international pressure, as a legitimate, recognized nation-state. Starting in 1939, Poland suffered incalculable losses in life and property as the central front of World War II. In the late 1940s, as Poland was resettling its refugees and rebuilding decimated cities and a shattered society, the Communist Party seized power. Poland radically changed again, this time from semi-democratic proto-capitalism to State Socialism. While the period from the 1950s to the end of State Socialism may appear politically stable—at least in the sense that the same party stayed in power for 40 years—in reality change was substantial, as the country underwent radical industrialization and urbanization. By the 1970s, Poles had laid the groundwork for the Solidarity social movement, which would manifest its political force in 1980, and then again in 1989, when it prompted the downfall of the Communist regime.

The 1989 revolution in Poland put an end to central planning and the one-party state. It ignited another period of major socioeconomic and political change, as society began transitioning to democracy and capitalism. Heeding advice of the West, Poland adopted the “shock therapy” approach to economic restructuring, in which the state withdrew quickly and decisively from the market, allowing the market to dictate immediately what needed to be produced, and for how much. The sudden and drastic shrinking of the state’s role in the market, and diminishing social welfare, coupled with transitional economic inefficiencies, meant that from the 1990s to the mid-2000s, a large proportion of Poles saw their economic lives deteriorate precipitously. Rising inequality and high unemployment and inflation quickly separated “winners” from “losers.” At the same time, the powerful European Union (EU) that Poland, like most other post-communist countries, was eager to join, set new social expectations.

By 2004, when Poland entered the EU, the forces of technology and globalization were busily transforming the world economy. A mere four years

later, a global economic crisis wrought havoc across most of Europe. Poland withstood the crisis better than many; it was an “island” of economic success, according to then-Prime Minister Donald Tusk (Bartyzel and Espino 2010). The year 2010 brought the Smolensk tragedy, when the president, his wife, the heads of all major military branches, many members of parliament, and many cultural and civic figures died in a plane crash in Russia. Yet the country remained politically and economically stable. Since the end of 2015, and as of this writing, Poland is again experiencing political turmoil with potential economic implications. In Central and Eastern Europe, history continually informs its future.

Data across Time

Research in social stratification generally does not give sufficient attention to the dynamics of social structure. Poland provides excellent data with which to theorize on these issues and to observe when, why, how, and with what consequences class and stratification patterns shift. Empirical studies carried out since at least the State Socialist period show how important it is to understand the interplay between historical forces and the changes to inequality over time.

Analyses presented in this book rely on a variety of survey data that span several decades. This includes social surveys conducted in Poland during the middle to late State Socialist era, as well as more modern studies such as the Polish Panel Survey POLPAN (1988–2013) and the European Social Survey (2002–2012). Individual chapters describe the specifics of the data and methods that inform the empirical findings in a given chapter.

Authorship and Structure of the Book

The authors of the book are social scientists, both established ones and young ones, all of whom work together at the Polish Academy of Sciences, and whose main research agenda involves conducting and promoting research on class and stratification. Ours is a multi-authored volume, meaning that we all assume responsibility for its content. At the same time, each chapter reflects the work of its respective team of authors, led by a chapter leader, who is the main contributor to that piece.

This book is structured along the core concepts mentioned above. They are Class and Stratification (Part I), Mobility and Attainment (Part II), Occupational Differentiation (Part III), and Class Analyses (Part IV). All are devoted to the theoretical and empirical aspects of social change and enduring inequalities.

Chapter One presents an overview of the main contributions of Polish sociology to social class and stratification research throughout the 20th and 21st centuries. The contours of Polish sociology closely follow the political and economic conditions of Polish society. We focus on contributions that are mostly relevant for this book and show that they have been grounded in Western schools of thought, have been in concert with the radical social change of their times, and have often been a collaboration between government and academia. The tradition of class and stratification research developed as part of, and in reaction to, Poland's rapid transformations: integrating a society that regained independence after World War I, with problems typical of European backward societies of the 1920s and 1930s; World War II and the introduction of State Socialism, agrarian reform, industrialization, and urbanization; the Stalinist era, which severely curtailed the nascent expansion of Polish sociology; the post-Stalinist years of the 1950s to 1970s; late socialism; the 1989 democratic and capitalist revolution; and the European Union era. As this chapter documents, the phenomena of class and stratification survived the successive eras of radical social change, even when there was a concerted effort to eliminate them. The Warsaw School of studying class and stratification, introduced in this chapter and discussed in more detail in the next one, provides powerful theoretical and empirical tools for social scientists to document and explain these social forces.

Chapter Two briefly defines the core concepts of social structure, social classes, and social stratification and discusses their features under State Socialism. During the Communist Party era, mass nationalization eliminated the salience of the class criterion of ownership of means of production and created political segmentation of the labor market. Next, the chapter presents theory and empirical demonstration of changes to the class structure and its relationship to the stratification structure in Poland from the time of State Socialism to the European Union era. This chapter also serves as a detailed presentation of the Warsaw School of studying class and stratification, and its investigations. According to the Warsaw School, the degree of the independence of class and stratification is an open empirical question. This chapter provides survey data analyses to empirically demonstrate the main thesis that

social class and stratification are related yet distinct elements of the social structure. Results consistently show that social classes cannot be reduced to a simple hierarchical pattern and that the relations between social classes change over time.

Chapter Three examines patterns of intra-generational mobility in the aftermath of the 1989 systemic transformation in Poland, spanning the 15-year period between the fall of “real socialism” and Poland joining the European Union. The assumption is that the class structure of a “real” socialist economy differed in a significant way from the class structure of nascent capitalism. Within a single generation, social mobility developed under unique conditions—people moved between social positions specific to two different socioeconomic systems. This is in contrast with typical situations where social mobility is examined within the framework of a single socioeconomic system, and therefore within a relatively stable class structure. Typically, the process is analyzed with the help of symmetrical tables (matrices) of mobility that have the same “entry” and “exit” categories. The analysis in this chapter departs from this model: it takes into account the different social classes from which individuals originate (typical of socialism) and the classes they enter (typical of nascent capitalism). Such an analysis demands a new approach to the presentation of the flow of persons between social categories, and in this case, of social classes.

Chapter Four deals with changes in the “openness” of Polish society over a 25-year period. It focuses primarily on relative mobility, with some attention to changes in absolute mobility. For Poland between 1982 and 2006, we disentangle the intergenerational occupational association into four inter-related parts: (i) relative mobility defined by the effect of social origin on destination, (ii) the relationship between social origin and education, (iii) the net effect of education on destination, and (iv) the compositional effect of education reflected in the rising share of more educated categories in the social structure. We show that intergenerational mobility rates rose only among women. Changes in social fluidity were neither systematic nor easily interpretable. Results show a consistently declining association between education and occupational position but no unidirectional change in the social origin-education link and relative mobility, considered in terms of the association between origin and destination. Beginning in the late 1990s, for men, the origin-destination association generally increased at the higher (rather than lower) educational levels. The decline of the effect of education on occupational position is one of the most striking features over the last decades.

Chapter Five assesses how the level of inequality in access to education during the era of the People's Republic of Poland (1944–1989) compares to the level nowadays, at a point when educational reforms have changed the Polish school system in a way unprecedented since World War II. For purposes of comparison, the results of empirical surveys of school careers carried out in the 1980s are contrasted with studies completed after 2000. We find that, over this extended period, the level of social inequality in access to education did not change; that is, currently the parental position determines educational chances to the same extent as it did in the 1960s, 1970s, and 1980s. Analysis of changes occurring in the educational system in Poland during the post-communist transformation supports our assertion that the mechanisms built into the pre-1989 system have been replaced by new mechanisms that appear due to the introduction of tuition in various school programs and the need for an extracurricular effort—involving financial expenses—to prepare students for competitive external exams. Furthermore, the increasing diversification of middle schools exerts a growing impact on the students' further educational itinerary and—indirectly—on their future occupational career. Analyses demonstrate how the mechanisms of intergenerational reproduction of social status swiftly adapt to changes related to the expansion of the educational system, efficiently leveling off the effects of school reforms.

Chapter Six looks at determinants of educational inequality before and after 1989. It complements the previous chapter by decomposing the overall effect of parental class and of education into effects of given class positions and of levels of educational attainment. We examine pupils' chances of passing certain educational selection thresholds (success or failure). We also use a four-category dependent variable to get insights into the formation of social inequality following unequal educational outcomes and differences in starting occupational trajectories. Results support the stability of the origin-destination link observed in pre- and post-1989 Poland.

Behind this overall stability, we find elements of change. The 1990s saw a noticeable increase in the impact of the mother's education on the odds that their children completed secondary school, net of other factors, including the father's class. Certain social class backgrounds—specifically, managers and business owners—exerted a much stronger effect on the likelihood of successfully passing from secondary to post-secondary school after 1989. For children of managers, this was also true with respect to the odds of completing secondary school. Finally, in the first decade after State Socialism ended, the offspring of skilled manual workers were more likely than those of lower-level

non-manual workers to go to post-secondary school. This finding should be interpreted cautiously—it may have been just a temporary fluctuation.

Regarding consequences of educational inequality, as reflected in starting points of peoples' occupational trajectories, we find that class background played a significant role in creating both educational and occupational inequality well before 1989. In socialist Poland, persons originating from unskilled manual workers' families, as well as those of farmer origin, were far more likely than children of low-level non-manual workers to take up employment (mainly manual), or even to stay out of the labor market altogether, than to continue to post-secondary school. The opposite was true for Poles whose fathers were professionals: the odds that they would take any other path than continuing to post-secondary school was significantly lower than for offsprings of low-level non-manual worker families.

Chapter Seven focuses on occupational classifications and scales in Poland since the 1970s. A classification of occupations is a set of discrete categories—from a few dozen to a few hundred—that identify the respondent's location in the detailed division of work. It aims to identify basic segments of the social structure without predetermining the extent to which the divisions reflect any hierarchical dimension. In this, classifications differ from occupational scales. Quantitative occupational scales, or indices, are hierarchical (continuous) measures of social position; they view individuals as occupying a common position in the social structure defined in terms of graded distinctions between occupational groups. We first present the 2009 Social Classification of Occupations (SCO-2009), which scholars in Poland developed to analyze sociologically derived class categories in countries of Central and Eastern Europe. We discuss its origins and its relation to the International Standard Classification of Occupations (ISCO). In the second part of the chapter, we present several quantitative scales that are based on the SCO scheme. They include the Polish Socioeconomic Index, the Scale of Skill Requirements, the Scale of Work Complexity, the Scale of Material Remuneration, and the Scale of Occupational Prestige. All capture "goodness" or "general desirability" as reflected in people's belief about various conditions associated with different occupations. There is a fundamental difference between (a) what these scales measure, and (b) social classes, whose measurement also involves taking occupations into account, generally via high-level aggregation of occupational classifications. The discrete class schema refers, among other things, to non-vertical variation, essentially ignored by detailed occupational scales. Scales are essential to measure the vertical dimension of social stratification.

Chapter Eight examines 50 years of occupational prestige data in Poland, starting from 1958. Western sociologists in the first half of the twentieth century found that different societies distinguished social stratification according to occupational prestige almost identically, and moreover, that prestige ratings strongly correlated with education and income. The stability of empirical results discouraged most researchers from conducting further studies of occupational prestige. As a result, after the 1970s, only limited data were available to address questions about the stability of occupational prestige within nations across long timespans. Poland is a notable exception. An overview of its 50-year-long systematic research on this topic shows that prestige hierarchies are very resistant to change but that change occurs nonetheless. From 1958 to 2008, the top positions were always held by occupations of professionals and specialists. Poles consistently held in low esteem occupations that required no special skills and characterized by low complexity of work, such as construction workers, agricultural laborers, and routine office workers. The most important change in prestige ratings is the radical decline in esteem of occupations linked with politics and high public offices: it started in the late State Socialist era and accelerated after 1989. Another important finding is that Polish society has a rather low level of consensus in individual prestige assessments, as reflected in the low correlation of individual prestige rankings. Comparison of results for consecutive times indicates that the average correlation declines. This could be a reflection of a more general phenomenon—a substitution of the old determinants of social inequality by new ones.

Chapter Nine empirically examines the alignment of social class with stratification in Poland before, during, and after the onset of the 2008 global economic crisis. Across Europe, the impact of the crisis was felt objectively, in terms of falling incomes and rising unemployment, and subjectively, in terms of everyday anxiety over economic insecurity. We make two main points. First, to address the impact of economic events on social phenomena, it is best to treat class and stratification as analytically distinct phenomena, as proposed by the Warsaw School of class and stratification. Second, introducing the intersection of class and gender reveals useful information and interesting socioeconomic patterns. While there are various conceptual strands of intersectionality, most quantitative analyses of it share three principles: (a) individuals belong to multiple demographic groupings, including those according to gender and social class; (b) some groupings provide advantages and some disadvantages, with each category rooted in the social stratification structure;

and (c) the intersections of categories influence access to, and acquisition of, scarce and valued resources. We find that Prime Minister Tusk's declaration of Poland as a "Green Island" was not entirely off the mark: as of 2010, there was no major realignment of class and stratification in Poland despite the worst global economic crisis since the Great Depression of the 1930s. By combining the Warsaw School with intersectionality, however, we notice a disturbing pattern that upsets the Green Island thesis. At the onset of the crisis and after, women at the bottom of the class structure—specifically, manual workers and farmers—began to have significantly and objectively worse economic conditions than men and were more likely to have felt economically insecure.

Chapter Ten analyzes dynamics of class cohesion by examining voting behavior from the early to late post-communist transition. In contemporary Central and Eastern Europe, the debate on class politics takes a different form to that in the West—it concerns whether class divisions increased as the post-communist societies transitioned to a market system. Results based on Polish survey data with information on respondents' voting behavior in elections from 1991 to 2005 indicate that class membership does indeed exert a significant impact on how people vote. Although the effect changed over time, in 2005 it appeared no less than in 1991. On the whole, evidence suggests that a new dimension of social stratification—which is referred to in sociological literature as "class politics"—has emerged. At the same time, claims of the class basis of voting in Poland cannot be exaggerated. The evidence presented here clearly indicates that the class-vote link in Poland is much weaker than in most Western societies.

Final Remarks

Poland has experienced extreme transitions since the end of World War II, including the forced egalitarian policies of the State Socialist era, the sharp return to liberal capitalism, accession to the European Union, and the 2008 global economic crisis. During these transitions, social scientists in Poland have collected fascinating public opinion data on ordinary people who have experienced big changes to their lives, families, and communities. Yet most research focuses on limited time frames. This is the rare book that both highlights the best in contemporary Polish social science and meaningfully analyzes and interprets long-term changes in social inequality in Poland.

PART ONE

Class and Stratification

CHAPTER ONE

Polish Sociology and Investigations into Social Class and Stratification, 1945–2015

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Introduction

Robert Bierstedt, a student of Florian Znaniecki, writes in his classic sociological reference book: “There is nothing like Russian genetics, English mathematics, Chinese chemistry, African botany or republican philosophy, socialist meteorology, catholic physics or finally protestant sociology. The empirical regularities discovered in sociology are true or false independent of their origin and independent of the race, religion, nationality or political views of the scientist who discovers these laws” (1970, 19). In a footnote, however, he adds: “Of course this does not mean that there are not differences in the problems studied or the methods used in different countries” (1970, note 10). The opinion that sociological research is partly universal and partly country-specific is widely accepted in the literature.

When one refers to the uniqueness of Polish sociology, this is primarily because of its understanding of given problems in certain times, and not because the research occurs in Poland. Polish sociology, like all other national sociologies, reveals images of social problems as well as societal patterns in a historical perspective. Since the early 20th century, social scientists in Poland provided valuable research on social change, investigating the transformation of the social class structure and the stratification system. These studies,

¹ Parts of this text draw on Wesołowski and Słomczyński (1977) and Słomczyński and Krauze (1986).

while grounded in major theoretical traditions, such as those initiated by Marx, Weber, and Durkheim, also developed in reaction to the major conditions and events in Polish history: integrating a society that regained independence after World War I, with problems typical of European backward societies of the 1920s and 1930s; World War II; the introduction of State Socialism with its wide-ranging consequences (agrarian reform, “forced” industrialization, and the accompanying urbanization); the post-Stalinist period and late socialism; the sweeping political, economic, and social change following the end of State Socialism in 1989; and finally, the European Union era.

In this chapter, we present, in historical context, an overview of the main contributions of Polish sociology to social class and stratification research. This is not intended as a detailed account of the history of Polish sociology, which is well documented elsewhere (Borowski 1983; Sztompka 1984; Kwaśniewicz 1993; Wysińska and Szmata 2000; Mucha and Zalecki 2002, Mucha 2003; see also Walaszek 1977; Kubiak 1996; Mach and Wesołowski 1997; Sułek and Kraśko 2002). We try to link our overview of the research on social class and stratification to political and economic conditions of Polish society, focusing on contributions that are mostly relevant for this book.

Origins: The 1920s and 1930s

In 1914 Poland’s three occupying powers, Austria-Hungary, Germany, and Russia, went to war, with Austria-Hungary and Germany on one side, and Russia and its Western allies on the other. The reshaping of Europe in 1918, following Austria-Hungary and Germany’s defeat, brought about Polish independence after 123 years of foreign occupation. For Poland, this represented a tremendous achievement but also enormous social problems. These included the challenges of unifying regions previously occupied by different powers, ethnic conflicts among Poles and minorities of Ukrainians, Jews, Byelorussians, and Germans, political instability, and economic backwardness.

In 1921, the Central Statistical Office conducted the first Polish census, revealing territorial differences in basic socio-demographic characteristics and ethnic background described in terms of nationality, language, and religion, as well as sources of income and housing conditions. Although the 1921 census was criticized for methodological shortcomings—overly complicated questions and poor training of interviewers—it provided a great deal of useful information for social scientists (Łukasiewicz 2009). Sociologists used data on occupa-

tional status in 1921 and 1924 to analyze achievement, especially educational achievements measured by schooling and actual ability to write and read.

Interwar Poland was a largely agrarian society seeking to modernize. In the early 1930s, nearly 61 percent of the labor force was self-employed in agriculture, while a little over a quarter were manual workers outside of agriculture (Zagórski 1976, 67). Polish social scientists were concerned with the “tension” between the traditional peasantry and the growing working class in the process of social change. Overpopulated rural areas with peasants on small plots and inefficient farming were seen as an obstacle to industrialization. The growing working class, by contrast, was considered a sign of modernization in which intelligentsia played an important role (Żarnowski 2003).

Intensive studies of the Polish class structure were carried out through the Socio-Economic Institute in Warsaw. The Institute was founded by Ludwik Krzywicki, a prominent Marxist scholar, in the 1920s; he headed it until his death during World War II. The Institute had many famous collaborators, including Michał Kalecki (an economist well known for his theory of business cycles and conditions of economic development), Ludwik Landau (an eminent social researcher studying the division of the gross national product among social classes), and Stanisław Rychliński (a sociologist writing on social stratification) and produced research with a lasting impact on Polish sociology.² Many empirical investigations conducted under the auspices of the Institute were founded on Marxist assumptions, especially those that dealt with the composition of the labor force, unemployment, and the standard of living of the working class. The empirical studies conducted in the Institute, as well as in the Central Statistical Office, were influenced by the work of Jerzy Neyman, the Polish mathematician and statistician who first introduced the modern concept of the “confidence interval” into statistical hypothesis testing.³

The Lwów-Warsaw School, founded in 1895 by Kazimierz Twardowski, was the most important movement in Polish philosophy (Woleński 1989; Coniglione 1993). Although it did not influence interwar Polish sociology in terms of theoretical ideas, it shaped a methodological framework within which a large group of sociologists worked at the Socio-Economic Insti-

² An extended description of the activity of the Socio-Economic Institute can be found in the book by Szturm de Sztrem (1959).

³ Neyman’s advising on sampling was essential for social sciences in prewar Poland. His biography and contributions to statistics are presented in Reid (1982).

tute, the Central Statistical Office, and the University of Warsaw. Stanisław Ossowski from the University, at that time an active follower of the school, was very successful in adopting the school's style, paying considerable attention to the methodological qualities of empirical research (Mokrzycki 1974).

After publishing, with William I. Thomas, *The Polish Peasant in Europe and America* (1918–1920), Florian W. Znaniecki returned to Poland. His work, based on personal documents, was considered in Poland as a fundamental contribution to empirical sociology. In Poznań he established the Polish Institute of Sociology, the fifth-oldest sociological institute in Europe. In 1930 the Institute began publishing the first Polish sociological journal, *Przegląd Socjologiczny* (Sociological Review), with Znaniecki serving as its editor-in-chief until 1939.

In the mid-1930s, to study the problems of, and prospects for, change and modernization of the Polish peasantry, Józef Chałasiński, a student of Florian Znaniecki, and his colleagues established the Institute of Social Problems of the Village. Acute agrarian problems, such as division of the land among the peasantry, concentration of the land in landlords' estates, the overpopulation of villages and primitive living conditions of peasants, prompted sociologists to study these issues, seeking to reconstruct the social world as seen by the peasantry. The Institute collected over 1,500 life histories of young peasants, in which peasants described their life and work conditions, perception of social reality, and cultural and political aspirations. The analysis yielded a four-volume study, *The Young Generation of Peasants*, published just before the outbreak of World War II (1938). A recurrent finding was peasants' perception of a severe division of Polish culture into "lords" and "peasants," where "lords" comprised not only landlords but also the bourgeoisie and intelligentsia. Young peasants felt that the upper classes limited their chances for advancement. They saw themselves as being in an "underclass," yet a class essential to the nation's economic and political survival.

World War II

The start of World War II suspended social research, as Nazi Germany closed down all Polish research institutions. However, some inquiries were conducted as clandestine or private activities. A noteworthy example is Ludwik Landau, an eminent social scientist, who kept a diary in Warsaw from 1939 to 1944 (when he was arrested by the Gestapo and probably killed). His diary contains

information on the political and economic situation in Poland and the conditions of Jews in the occupied country; it also contains statistical material, such as indicators of the cost of living in the country. Published in three volumes after the war, Landau's work became an important source for understanding life conditions during World War II from a social-science perspective.⁴

After the War: State Socialism, Industrialization, and Urbanization

Following the end of World War II in 1945 and the realignment of international political influences in Europe, across Central and Eastern Europe, communist regimes seized power and pursued modernization and social rebuilding via forced rapid and radical urbanization and industrialization. Mass migrations from rural areas to the cities, and abrupt shrinkage of the peasantry, paralleled by the rise, in both size and prominence, of the manual unskilled working class, were part of these revolutionary processes, which produced tremendous societal upheavals in already war-torn countries.

This was clearly Poland's case, where transformations also involved another very extensive border modification following the outcome of the Potsdam Conference (July 17–August 2, 1945). For Polish sociologists, the aftermath of the war, 1945–1949, meant an all-encompassing crisis: staff had been drastically reduced, resources were scarce, and organizations were difficult to establish. As such, large-scale empirical investigations were not possible. Priority was given to teaching as a prerequisite for the future development of sociology, and to organizational rebuilding. The older generation of professors and the younger generation of students pitched in to reconstruct universities, organize departments, and fill the teaching staff. Given the growing political power of the communist Polish Workers' Party, Marxist theory in the social sciences, already present between 1918 and 1939 in the works of Krzywicki and others, became *de rigueur*. Adam Schaff's academically popular *Introduction to the Theory of Marxism* (1947) included one chapter on Marx's theory of classes and another chapter that explained some specific features of the revolutionary changes in Poland. Schaff examined the

⁴ See Landau (1962–1963). Ludwik Landau's work was edited by Zbigniew Landau and Jerzy Tomaszewski.

class structure in pre-revolutionary Polish society and highlighted agrarian reform and political alliances between the working class and peasant parties.

The works of Józef Chałasiński, professor at the newly created University of Łódź, were highly influential at that time. His study, *The Genealogy of the Polish Intelligentsia* (1946), which applied the same theoretical assumptions of class formation as *The Young Generation of Peasants*, provoked nationwide discussion on the Polish intelligentsia, its social origin (as genealogical and cultural descendants of the Polish nobility), snobbery, and exclusiveness.

The Stalinist Period

The Stalinist period severely curtailed the nascent expansion of Polish sociology, due to an unfavorable climate toward sociology in general and empirical sociological research in particular (see Szacki 1993). Yet some empirical projects on class and stratification were continued, and others began. In the late 1940s at the University of Warsaw, Stanisław Ossowski and Stefan Nowakowski began empirical investigations on Polish peasant communities in the western territories transferred from Germany to Poland after World War II (Ossowski 1947). These investigations were primarily aimed at explaining the survival of Polish folk culture and national identity in communities that had been under German domination for centuries.

The Jagiellonian University in Kraków, under the direction of Kazimierz Dobrowolski, an ethnographer who went into sociology, produced a series of empirically oriented monographs on the class structure and social and cultural change in the villages and small towns of southern Poland. Dobrowolski (1952) developed a historically oriented method of fieldwork. He and his students examined government policies to improve the material and cultural well-being of the working class in the well-known mountain resort of Zakopane. In 1949 and 1950, in Zakopane, the trade unions took over privately owned hotels that, before the war, had been resorts exclusively for the intelligentsia and other white-collar workers. After the government encouraged members of the working class to spend their vacations in this formerly exclusive vacation spot, workers adjusted to a new style of leisure. They experienced new patterns of free time, rising aspirations, anxieties, and fresh relations with members of the white-collar classes.

Julian Hochfeld and Stefan Nowakowski (1953) reconstructed the formation of working-class consciousness on the basis of the memoirs of nearly

5,000 people. These authors investigated the class transformations of both the working class and intelligentsia, including their life and work conditions and their political attitudes. By the mid-1950s, Poland was becoming a consolidated socialist country with a sizable working class whose importance was tied to industrialization as well as to the ideology of the party-state.

The Post-Stalinist Decades: From the Late 1950s to the Late 1970s

The death of Stalin in 1953 loosened Soviet pressure on Poland, including its academic life, allowing Polish sociology to revive. Intense progress in empirical investigations of class and stratification followed, concentrated initially at the Institute of Philosophy and Sociology of the Polish Academy of Sciences (IFiS PAN), created by Adam Schaff in 1956. In time, more and more scientific organizations, mainly institutes of sociology at major universities, conducted empirical studies, such as at the Institute of Sociology at Warsaw University (later, the University of Warsaw), as well as similar institutions at the University of Łódź, Jagiellonian University (Kraków), and the University of Adam Mickiewicz (Poznań).

An important sign of sociology's growth as a discipline was the creation of the Polish Sociological Association. In 1957, Stanisław Ossowski transformed the sociology section within the Polish Philosophical Association into the Polish Sociological Association (PSA). Ossowski was president of the association until 1963 (for a history of the PSA, see Sulek and Kraśko 2002). Jan Szczepański became the president of the International Sociological Association in 1966 for the term that ended in 1970. He was essential for the institutionalization of Polish sociology and for establishing its links to sociological centers across the globe.

Empirical studies of the early 1960s devoted to social structure were based on the rich tradition of Polish sociological theorizing represented by Stanisław Ossowski, Jan Szczepański, and Julian Hochfeld (see Wesołowski and Słomczyński 1977). Studies were carried out by Włodzimierz Wesołowski (Wesołowski and Słomczyński 1968), Adam Sarapata (1965), Stefan Nowak (1966), Stanisław Widerszpil (1965), Jan Malanowski (1967), and Michał Pohoski (1964), exploring various aspects of social inequality, from access to education to social mobility and its psychological consequences. Some of the major achievements of this period were aptly summarized by Michael Kennedy:

Empirical sociological research blossomed under the direction of Szczepański, with 28 monographs on the working class and *intelligentsia* being produced between 1955 and 1965. This is the first period of major empirical research on inequality in post-war Poland. In Szczepański's general framework, class structure was understood and explained in terms of the relationship between historical foundations enabling continuity and the changes wrought by industrialization and revolutionary transformation. These general themes were taken up by examining how specific groups within each of these larger classes experienced the dramatic changes Poland faced in this period. Inequality was not studied so much as class provided the point of departure for examining the consequences, both intended and unintended, for everyday attitudes and behavior of socioeconomic and political changes (Kennedy 1991, 28).⁵

By the late 1960s, a major current in social science research developed on the topics of social class, stratification, and social structure, in line with the continuing focus on the division of people into occupational categories. Yet Polish scholars were keenly aware that occupational divisions in communist regimes throughout Eastern Europe differed from the West in key areas. First, the state played a leading role in allocating people to jobs. Second, state socialist economies were full-employment economies, meaning that unemployment—the situation of looking for but not finding a job—did not officially exist. Instead, there was increased bureaucracy and redundant positions, as the government had to create jobs for everyone.

It was, therefore, necessary to develop operationalizations of key stratification concepts that fit the realities of countries like Poland, where the Communist ideology, coupled with the centrally planned economy, made the makeup of society significantly different from Western capitalist countries. Włodzimierz Wesołowski, in the mid-1960s, made the first attempt in Poland to create a classification of occupations for sociological needs that was appropriate to the Polish situation (Słomczyński and Wesołowski 1972). The resulting classification performed well in empirical tests, fitting the data better than the division of society into working class, peasantry, and *intelligentsia*. It was used continuously (with a revision in the 1970s) in a wide

⁵ For the program of these early studies, see Szczepański 1958; 1961–1962.

range of analyses of communist Poland, including what were known as the Szczecin-Koszalin-Łódź, and then Łódź, studies (Janicka 1987; Słomczyński, Janicka, and Wesołowski 1994).

Wesołowski (1964) also contributed important insights to the theory of social inequality in socialist countries. Conflict of interest becomes an important element of analysis at the level of socioeconomic categories. In a socialist society, the system of remuneration for workers in the public sector is based on the principle “to each according to his work.” Therefore, the allocation of goods for white-collar and blue collar workers depends on their work and occupational qualifications. Since many goods are in scarce supply, the system of distribution is bound to produce conflicts between various socio-occupational groups among which goods are unevenly distributed. Wesołowski suggests that this situation is endemic to the socialist system and gives rise to “structural contradictions of interest” within the system. In connection with this, he has developed several hypotheses concerning the conditions under which objective contradictions of interest lead to articulated conflicts.

As early as 1958, Wesołowski and Adam Sarapata carried out the first Polish survey on the evaluation of occupations and jobs according to three criteria: income, job security, and prestige. This type of investigation continued during the 1960s and 1970s. The results have been used for testing hypotheses on the “decomposition of social position attributes” under the impact of revolution and industrialization.

“Decomposition of social position attributes” means that education, income, prestige, authority, and other characteristics of social position do not show a consistent pattern. While this references Gerhard Lenski’s (1954) article on status crystallization and the discussions it prompted in sociology on status inconsistency, the theoretical interpretations here have a different orientation than those found in contemporary sociology. Two new directions of interpretation are particularly noteworthy. First is the stated hypothesis concerning the *positive* functions of status inconsistency—both for the social system as a whole and for the individual. To this corresponds the suggestion that policy-makers consider adopting measures aimed at reducing social inequality by promoting status inconsistency, at least among some attributes of social position.

Wesołowski argued that a socialist system has a basic dilemma: “The decomposition of the attributes of status,” as he calls it, i.e., the status incongruence, is a departure from the Marxist principle of “to each according to his contribution” in the name of social justice. Yet fully applying the principle also creates problems: it leads to status consistency, and ultimately, to

inequality, because people rewarded the most generously acquire the means to pass their privilege on to the next generation.

Another key thesis that stratification scholars in Poland developed at this time referred to the salience that control over the labor process had for differentiating social classes in socialist societies. The main assumption was that state control of the economy and minimal private ownership reduce the importance of ownership of the means of production for class distinctions. Instead, they increase the role of those social classes responsible for overseeing the working process, that is, how economic state directives are being implemented to achieve centrally planned economic goals. This approach to social class enabled sociologists to develop a more complex and accurate mapping of socialist societies than the widely employed Marxist-inspired tripartite schema of the working class, the intelligentsia, and the peasantry.

Marxism taught that after the revolution, in the early period of communism, some social classes based on the criterion of ownership of the means of production would survive. In Soviet Bloc countries, the remnants of capitalism—classes that survived the socialist revolution but were expected to lose their significance as communism consolidated—were the working class; white-collar workers, commonly called the “intelligentsia”; and the peasantry. This notion of a simplified class structure was not confined to Marxists or to the Eastern Bloc. Sociologists analyzing class and stratification in socialist countries often employed these few classes in their empirical work. In Poland, historians, sociologists, political scientists, and economists of various persuasions who looked at Eastern European societies through the prism of the past accepted this notion as standard knowledge.

Whereas class self-identification does not presume a gradation scheme, the situation with self-evaluation of social position is different: individuals place themselves on higher or lower levels of the social hierarchy. In surveys carried out in Poland, to determine self-evaluation of social position, the following question was generally asked: “In your opinion, what position do you occupy in society?” Suggested possible answers ranged from “very high position” to “very low position.”

Although the term “social position” is used very often in the mass media, it is not univocal. The common understanding of this term was reconstructed on the basis of evaluation criteria used by respondents.

Respondents most often mentioned factors related to their own work. . . . These answers referred both to the requirements that had

to be met in order to take up employment in a particular occupation, and to the qualities of the job itself or the benefits it gives. Only 20% of the individuals did not notice this kind of factor (Słomczyński and Wesołowski 1972, 258).

Other analyses confirmed that social position is commonly understood as investments and rewards connected with one's place in the division of labor. Therefore it is not surprising that the higher the education, the greater the prestige of the occupation, and the higher the income, the higher the self-evaluation of social position. Stefan Nowak (1966, 89) writes:

These factors can be complementary, can substitute or cancel each other, shaping into something on the order of a synthetic gradation of a subjective social ladder. Taken together, they account for a substantial part of the variance of social position evaluation.

As in other countries, in Poland social mobility is studied in the occupational dimension. It is worth noting, however, that due to social transformations, the hierarchy of occupational groups is not stable over long(er) periods of time. To adequately determine inter-generation, or even intra-generation, movement between occupational groups in terms of "upward" and "downward" mobility requires caution. Since some occupational groups undergo movement as a whole, in many studies the concept of group mobility is used in addition to the concept of individual mobility (Pohoski 1964).

The first data on the rate and pattern of intergenerational mobility come from a survey on the adult population in Poland conducted by the Public Opinion Research Center (OBOP) in the early 1960s (Nowak 1966). In the years 1968–1972, the Central Statistics Office conducted three important surveys (Zagórski 1976). The biggest included a large sample ($N = 72,179$) of men and women aged 15–69.⁶ The purpose of the study was to obtain accurate information on the occupational position, formal education, and place of residence of respondents not only at the time of the study but also at the time

⁶ The data from this survey have been thoroughly analyzed in two of Zagórski's books (1976 and 1978). They have also been used in some two-country comparisons (e.g., Andorka and Zagórski 1979, 1980; Meyer, Tuma and Zagórski 1979; Haller and Mach 1984) and other cross-national analyses (e.g., Erikson and Goldthorpe 1992; Sawiński and Domański 1989).

of their first employment. In addition, information was collected on the social background of respondents, that is, on the occupation and education of both their parents. A variety of demographic characteristics were also gathered: the place and year of birth, the year of initial employment, marital status, and the year of completing education. The author of this study describes the essence of mobility patterns in the 1970s as follows:

Despite the natural tendency to “inherit” social position, one can ascertain a high degree of social mobility from the group of individual farmers to groups of both manual and white-collar workers, and from the manual group to white-collar workers. The flow between the two latter groups is far from one-way and the following should be stressed as a symptomatic fact of the overlapping of borders between groups: every fourth professionally active person, originating from families belonging to the sphere of white-collar workers, works manually at present (Zagórski 1976, 3).

In the 1970s one could observe stabilization and even a decreasing outflow from worker and peasant groups to the intelligentsia. Simultaneously, there was a growing tendency of outflow from the intelligentsia to the working class. This indicated that the “extensive” increase of employment in white-collar occupations had ended with this stage of industrialization. Moreover, barriers dividing the working class and intelligentsia, especially between skilled workers and middle or lower office and technical staff, diminished.

Until the 1970s, there was little scientific coordination and no government policy of centralizing social science research. At the beginning of the 1970s, the government gave more subsidies to investigations of social structure and its transformation. They encouraged the coordination of research themes and methods, and much of this coordination was entrusted to IFiS PAN. To create more possibilities for cumulative findings, IFiS PAN attempted, and was largely successful at, the standardization of the key stratification variables of occupation, education, income, and living conditions.⁷ The quality of data obtained by using recommended questionnaire items had

⁷ For early work on the standardization of sociological variables, see Wesołowski (1974); Pohoski, Słomczyński, and Milczarek (1974); Daniłowicz and Sztabiński (1977); Pohoski and Słomczyński (1978); Słomczyński and Kacprowicz (1979); Daniłowicz, Lutyński, Sianko, and Sztabiński (1980).

been assessed (Daniłowicz and Sztabiński 1986). By the 1970s, the separation of class and stratification was the norm for Polish sociologists working in this field (Słomczyński and Krauze 1986, 4).

Late Socialism

For Poland in 1989, the collapse of State Socialism was a result of both enduring economic failure and social movement pressure. Industrial output began to decline in 1978 and continued to fall through the 1980s. It was accompanied by deteriorating standards of living. Social discontent in August 1980 fueled the creation of Solidarity, which started as a nationwide trade union and then became a social movement (see Garton Ash 1999 for a history of Solidarity). The most dramatic state crackdown on its activities took place on December 13, 1981, when Wojciech Jaruzelski's government declared martial law (1981–1983).

Political events of the 1980s—the birth of Solidarity in 1980 and the introduction of martial law in 1981—led to a change in Polish sociologists' theoretical perspective on social structure and mobility. The change was manifested in a greater focus on social conflict, including the formation and articulation of group interests. Social classes, defined on the basis of real conflicts, were treated as at least as important as social stratification—the unequal distribution of goods and opportunities. Scholars claimed that a proper understanding of social structure was not possible without considering class formation and class mobility.

In terms of the theory of social structure, the late socialist era brought important contributions. Leszek Nowak (1983) argued that economic, political, and spiritual spheres each generate their own division of society into two basic and opposite social classes: owners and direct producers, rulers and citizens, and priests and those indoctrinated by priests, respectively. He viewed socialism as a tripartite class system in which owners, rulers, and “priests” united. According to Nowak, real socialism is an oppressive social system, since power is concentrated in the hands of triple-masters. Nowak's work on social classes is built into the “non-Marxian historical materialist” theory of socialism. However, its implications are hard to test. By contrast, Stanisław Kozyr-Kowalski's (1988) narrower theory of macro-classes, micro-classes and other types of ownership-labor differentiation of society have been subject to empirical application in his papers on class relationships in contemporary

Poland (Kozyr-Kowalski 1990). Theoretically, Jadwiga Staniszkis's (1989) conceptualization of class is similar to that of Kozyr-Kowalski's, since both rely on analyses of ownership and its implication for economic activity.

Beginning in the early 1970s, a number of surveys on national samples were conducted with the aim of investigating various features of social structure. Among them are the Survey on Attitudes toward Social Inequality (1984);⁸ Career Mobility Surveys (1972, 1987, 1991);⁹ Survey on Job Conditions and Psychological Functioning (1978–1980, 1992);¹⁰ Survey *Poles* (1980–2011),¹¹ the Living Conditions Survey (1975, 1982, 1986, 1989, 1991),¹² and the Polish General Social Survey (with the first round in 1992).¹³

By the 1980s, central planning in social science was well established. Since social structure and mobility were on the priority list of government-

⁸ Principal investigator Edmund Wnuk-Lipiński. The survey focuses on self-identification, popular images of social differentiation, social bonds, and deprivation. It was part of a larger project on subjective aspects of social structure and mobility, which contained 1) an extensive questionnaire for interviews with highly qualified engineers, and with skilled workers and farmers, as well as 2) a more concise version of the questionnaire, for a national survey (Wnuk-Lipiński 1987).

⁹ Long-lasting research project on career mobility, carried out by the Social Mobility Research Group of the Institute of Sociology at the University of Warsaw, under the direction of Michał Pohoski. The study dealt with the "life history" of people who began their occupational career after World War II, with detailed information on the consecutive jobs of the respondent and on schooling and housing conditions (Pohoski 1983; Pohoski and Mach 1986; Jaźwińska 1990; Pohoski and Styczeń 2000; see also Białecki, Domański, Mach, Pohoski, and Zaborowski 1986).

¹⁰ This is a replication of the Kohn-Schooler study (Kohn 1969) conducted in the United States in 1966 and 1974 (Kohn and Schooler 1983) on the psychological concomitants of social inequality. Polish replication (Ślomoński, Miller, and Kohn 1981) included the distinction between social class and stratification; see Ślomoński and Kohn (1988); Kohn and Ślomoński (1990). See also Miller, Ślomoński, and Kohn (1985) and Ślomoński, Janicka, Mach, and Zaborowski (1999).

¹¹ This is an important series of surveys dealing with dynamics of conflict and systemic change in Poland (see Adamski 1981, 1989, 2014).

¹² This survey was conducted under the auspices of IFiS PAN, with Lidia Beskid as principal investigator. Although the survey focused on living conditions, it includes a number of variables usually used in the analysis of social structure and mobility (Beskid 1989, 1992). In the last survey (1991) the same people were interviewed as in 1989 (panel sample). The other surveys are cross-sectional.

¹³ Initially this study was patterned on the US General Social Survey and ALLBUS: a German Social Survey (Cichomski and Morawski 2002; Cichomski, Jerzyński and Zieliński 2003).

sanctioned studies, it prompted research teams to focus on, and submit proposals for funding for, these topics. The history of the Polish Panel Survey POLPAN, which began in the late 1980s, is emblematic of the dynamic relationship between government, society, and social science investigations into stratification, class, and mobility during those times. In 1987, a research team at IFiS PAN led by Kazimierz M. Słomczyński and Henryk Domański proposed to the government to conduct a large-scale, nationally representative, survey study of working-age Poles, to investigate stratification and mobility in contemporary Poland. The research team included Ireneusz Bialecki, Krystyna Janicka, Bogdan W. Mach, Zbigniew Sawiński, Joanna Sikorska, and Wojciech Zaborowski—experienced researchers with strong publication records.

Since many methodological issues needed clarification to ensure the highest quality of such an ambitious project, the IFiS PAN research team also applied for state funding for a large pilot study ($N = 2,000$). The government financed both the pilot research, Social Structure I, and the main survey, Social Structure II—currently known as POLPAN 1988 ($N = 5,884$). Based on the pilot research, POLPAN 1988 included questions to facilitate the measurement of major class and stratification concepts, including school career, occupational history, income, inter- and intra-generational mobility, household composition, consumer durables in the household, housing conditions, membership in organizations, and religion.

Both the pilot study and POLPAN 1988 were carried out under the auspices of the Polish Academy of Sciences (PAN), a prestigious and largely independent academic institution. Social scientists specializing in stratification, mobility and survey methodology from the United States and from across Europe served on POLPAN's advisory board. The project's fieldwork started in 1987 and was completed in 1988. At the time of its design, POLPAN 1988 was thought of as a cross-sectional survey. In 1993 this Polish survey became the first wave of what is currently the longest-running panel survey on national samples of adult population in Europe, spanning 1988–2013 in five-year intervals.

The unrest in Poland since martial law in the early 1980s, including the repression of Solidarity in the mid-1980s, is reflected in the 1988 POLPAN survey. Respondents were asked about people's beliefs in the leading role of the party (a core tenet of State Socialism), about inequality, and about the role of government intervention in society and economy. From the beginning of POLPAN's design phase, principal investigators were aware that these were all sensitive issues, and they held intense discussions on what should and should

not be asked. They wondered whether respondents would answer honestly. As sociologists, they thought of the interview as a social process, in which researchers, interviewers, and respondents had particular expectations. They concluded that people would answer as honestly as they would in semi-official situations, when one knows there is the possibility of being overheard.¹⁴

The Fall of Communism: Democratic Capitalism and Economic Restructuring from the 1990s to the 2010s

The Solidarity movement survived despite periodic repression by the government and became a major political force that defeated the communist party in the June 1989 elections. This was not an instant event but the culmination of prolonged economic failure, which resulted in people losing confidence in the party-state's ability to produce continued economic growth and material well-being. Historical circumstances mattered, too (see Staniszkis 1991). Internationally, it was facilitated by the new internal and external policies of the Soviet Union under Mikhail Gorbachev.

The fall of the communist party from power and the ushering in of the democratic and capitalist revolution in Poland and other Eastern European countries brought new problems to solve. As Eastern Europe moved from a centrally planned to a free-market economy, basic questions needed to be answered, and quickly: Who has the knowledge, expertise, and connections to run private businesses? Which businesses run by the state should be privatized, and which should be kept under state ownership? How will pensions be honored? How will taxes be collected? What elements of the social welfare state should be kept, and how strong should those programs be? How will the national economies link to the rest of the world?

Post-communist states considered two main approaches to restructuring their economies; each would have huge structural effects on the labor market and the relationship between class and stratification. One was the “shock therapy” and the other was the “evolutionary approach.” In shock therapy, the state withdraws quickly and thoroughly from the economic market and allows the market to dictate immediately what needs to be produced and for

¹⁴ The POLPAN team even included a question for the interviewer asking whether the interviewer felt the respondent was answering only in an official capacity. The correlation with respondent answers, however, is weak.

how much. Shock therapy advocates favor radical economic liberalization as the means to generate foreign and domestic investments, accumulate capital, and grow the economy. They oppose heavy state regulation of the economic market and privilege the private sector. The evolutionary approach slows down this process, with the state slowly and gradually allowing the market to evolve and correcting problems along the way.

Both methods have problems. In shock therapy, the conditions for an efficient market are largely absent: there is little information about the market, and the economic institutions that assess and manage risk are not in place. Therefore, the quality of life, especially in the short run, worsens dramatically, as people are forced to make quick and uninformed economic decisions, resulting in mass unemployment and high turnover in fortunes. Economic inequality is high as the economy quickly separates “winners” from “losers.” In the evolutionary approach, the economy is slow to change and cannot quickly adapt to the rapidly changing, globalized economy. On advice from the West, many countries, including Poland, chose the shock therapy approach.

The end of State Socialism and the radical socioeconomic and political transformation Poland embarked on in 1989 made many class and stratification research topics highly salient. The composition of social classes changed, and so did the stratification structure. Social inequality rose sharply. The initial transition period created an emerging class structure “typical” of market and democratic societies, with new social categories, including career politicians, full-fledged capitalists, financial and managerial specialists, and professionals in banking, public relations, and electronic information management. At the same time, this emerging class structure had to incorporate the elements of the old state socialist one, including the *nomenklatura*, who enjoyed special privileges in the political segmentation of the socialist labor market (Słomczyński and Lee 1993); the heavy-industry working class, who were an important political force in the communist regime (Gardawski 1994); the peasantry, who were defined by their individual ownership of arable land, yet were dependent on state controlled access to agricultural equipment and were involved in the state distributive system of agricultural products (Gorlach and Mooney 1998); employees in redundant bureaucratic positions, who represented a hidden form of unemployment (Domański 2002b); and those organizing the informal economy (Osborn and Słomczyński 2005).

Arguments about changes in the Polish social structure in the 1990s have their origin in the pre-transition period. As early as the beginning of the 1980s, Jacek Kurczewski (1995), analyzing the consciousness and inter-

ests of intelligentsia and skilled workers in the context of membership in, and support of, the Solidarity movement, came to the conclusion that both these segments of the social structure formed the “new middle class.” Empirical evidence of this class alliance rested in inter-group similarity with regards to support for democratic values and pro-market rules, especially remuneration according to qualifications. In the 1980s and into the 1990s, one can read about the intelligentsia/working-class alliance in the series of studies called *Poles*, although without explicit reference to the “new middle class.” According to supporters, the structural basis for the alliance of intelligentsia and part of the working class is specialized qualifications, which become more important than traditional divisions of non-manual and manual work.

This thesis about the class alliance between intelligentsia and skilled workers in the 1980s was refuted on empirical grounds (Domański 1999; see also, from a different perspective, Ost 2005). Analyses for 1995 show that the “manual/non-manual” dichotomy remains clear-cut with regard to income inequality, social mobility, as well as social attitudes. In the income hierarchy, the gap between workers and non-manual strata widened over time; mobility barriers remained basically intact in the 1980s and 1990s. As far as social attitudes were concerned, members of the working class tended to support state paternalism—that is, strong involvement of the state in labor and consumer markets, while members of intelligentsia tended to oppose such government intervention.¹⁵ Based on these results, Domański (1999) concluded that in the 1990s, social stratification in Polish society approached patterns typical for contemporary capitalism. The same thesis is put forth in Domański’s recent book (2015) *Are There Social Classes in Poland?* (see also Cebula 2015).

¹⁵ The cumulative body of research (for a review, see Kohn and Słomczyński 1990) demonstrates that one’s position in the social structure has profound effects on personality. However, in Poland, as in both Western and non-Western capitalist countries, the psychological effects of one’s position in the social structure result primarily from more proximate conditions of life, job conditions in particular. Those who occupy a more advantageous class position or a higher position in the stratification order show more mental openness and less psychological discomfort than those who are structurally disadvantaged. The reason for this is that those more advantaged have greater opportunity to be self-directed in their work and other activities. All major differences between Poland as an “actually existing socialist society” and capitalist countries have disappeared in the 1990s when Poland started to build a capitalist democracy (Słomczyński, Janicka, Mach, and Zaborowski 1999; see also Mach 1998).

In the early 1990s, interest in studying social classes and stratification processes dealt with both theoretical and empirical issues. A main theoretical contribution is the multi-author work *On Social Differentiation*, consisting of vol. 1, *Critique and Defense of Class Analysis* (Kozyr-Kowalski, Przestalski, Tittenbrun, Chmara, and Heymann 1992); vol. 2, *A Contribution to the Critique of Marxist Ideology* (Kozyr-Kowalski and Tittenbrun 1992); and vol. 3, *Modern Capitalism: Between Class Struggle and Class Consensus* (Kozyr-Kowalski, Chmara, and Heymann 1992). By providing a variety of approaches represented by renowned scholars from Poland, other European countries, and the United States, this study generated discussions on changes of the class structure during the transition period from socialism to capitalism.¹⁶

At that time, many published books and articles were based on data gathered before the 1989 regime change. Some titles indicate this, like *U Progu Zmian* (At the Threshold of Change) or *Zmierzch Socializmu Państwowego* (The Twilight of State Socialism). In 1991 *Przegląd Socjologiczny* (Sociological Review) published a special volume (vol. 39) devoted to social inequality, with several articles referring to the 1970s and 1980s, or even earlier. These articles show a wide range of topics: genetic and social determinants of social inequalities (Anna Firkowska-Mankiewicz), inequalities in access to education (Ireneusz Białecki), intergenerational social mobility (Bogdan W. Mach) and status attainment (Krystyna Janicka), the impact of the political and economic system on social inequality (Andrzej Rychard), inequalities in consumption (Joanna Sikorska), and cultural participation (Elżbieta Skotnicka-Illasiewicz).

The great interest in studying social classes and stratification processes was visible at the Ninth Congress of the Polish Sociological Society, in 1994. Papers presented at one of the plenary sessions include (Sulek and Styk 1995, 6): "Processes of Class Formation in a Theoretical Perspective" (Włodzimierz Wesołowski); "Classes, Estates, Quasi-Classes and Under-Classes in Polish Society" (Stanisław Kozyr-Kowalski); "Social Inequalities: Continuity and Changes in the Period of Regime Change" (Michał Pohoski); "Recomposition of Social Stratification and Value Reorientation" (Henryk Domański); "Redistribution and Class Interest" (Edmund Mokrzycki); "Formation of New Elite:

¹⁶ The interest in Marxist and neo-Marxist interpretation of the social structure continued into the first decade of the twenty-first century; see Kochan (2011).

To What Extent Is the Nomenklatura Alive?” (Jacek Wasilewski); and “Old and New Middle Classes” (Jacek Kurczewski).

One can easily understand why academics and politicians alike were concerned with Poland’s emerging social structure, including inter- and intra-generational mobility patterns, the role of ascription vs. meritocracy, and exposure to risk of unemployment. It is in this context that the research team of POLPAN 1988 recognized the value of continuing—as a panel survey—the 1988 class and stratification study. Although funding was difficult to secure, Słomczyński and his team succeeded in conducting, in 1993, a second wave of POLPAN, to observe social structure and its change during the post-communist transformation. POLPAN 1993 was based on a random sample of 2,500 respondents from the 1988 survey, who were interviewed face-to-face. Over time, funding agencies saw the value of continuing the Polish Panel Survey POLPAN, which currently comprises six waves, administered in five-year intervals. The 2018 round is in preparation.

In analyses of Poland’s market transition spanning the 1990s and the early 2000s, many use the terms “winners” and “losers” (Domański 1999; Słomczyński and Shabad 1997; Jarosz 2005a; Verhoeven, Jansen, and Dessens 2009). Winners successfully navigated and even prospered in the early stages of the economic restructuring; losers did not. Reality is rarely a simple dichotomy, but the winners-and-losers divide showed a) the growing economic inequality after 1989, and b) that some classes that were winners in the socialist era became losers afterward.

Generally, after 1989 winners were people who possessed the skills and capital needed to jump-start a modern capitalist economy: high education, experience in how to manage people and ideas, connections with investors, contacts with key government officials, and experience with Western ideas. The losers in the early post-communist era were those who had benefited from the generous social safety net provided by the communist system: low-skill and unskilled workers, women, youth, the elderly, and the peasantry. The division of the population into winners and losers of the post-communist transformation may result in the marginalization of some specific groups of losers (Verhoeven, Jansen, and Dessens 2009). In general, marginalization is a process by which a group is either denied access to important positions and desired goods, or a group imposes upon itself various restrictions on its participation in the life of a society. In rapidly transforming societies, it is likely that unequal shares of the rewards of success lead to marginalization.

Between “winners” and “losers” are various categories of socioeconomic groups that some researchers equate with the middle class. It has been suggested that a stable and sizable middle class is a source of new entrepreneurial spirit, transmits “middle class values” associated with increased savings and promoting human capital, and creates demand for quality consumer goods. Domański (2002b) conducted an extended research on the “middle class” in Poland for the initial phase of the post-communist transformation. The topic has preoccupied researchers since the beginning of this century, in the context of class-based lifestyles (Leszkowicz-Baczyński 2007; Cebula 2013; see also earlier studies, e.g. Palska 1999; Kurczewski and Jakubowska-Branicka 1994). Recently *Krytyka Polityczna* (Political Critique), an important left-leaning journal, devoted a special issue (2015, vol. 42) to the middle class, presenting opposing views on the usefulness of this concept. We agree with the position that the concept is vague and confuses social class with stratification.

Recent years have seen animated discussion in Poland on social divisions, especially on the issues of interests and values (Ziółkowski 2000, 2015), and culture and lifestyles (Gdula and Sadura 2012; Żuk 2008, 2010). Class analyses focusing on lifestyle, based on Bourdieu’s (1987) theory, reveal not only inequality but also difference, distinction, and dissent, both between and within social groups. However, recent analyses have met with strong criticism, mainly on the grounds that in discussing lifestyles, Bourdieu’s theory is not framed in sociological tradition and that the applied class scheme is too simplistic (Gorlach, Fryś, and Jasikowska 2014). Recently, social classes have also been discussed in terms of inequalities framed in the political discourse (Woźniak 2012).

Of particular concern to Polish scholars was the fate of members of the former communist party, including the *nomenklatura*. In the 1980s the *nomenklatura* consisted of 360,000 job titles in the central and local government administration and all state enterprises (Tarkowski 1994, 319–20; see also Słomczyński and Lee 1993), and therefore far more people occupied these specific positions, since two or more people could work in jobs with the same title. Some people worked in the party-controlled positions without knowing that their job title was on the *nomenklatura* list. Although being on *nomenklatura* positions was statistically linked to membership in the Polish United Workers’ Party, the correlation was, at most, moderate.¹⁷

¹⁷ We return to discussing the *nomenklatura* in Chapter 2.

In analyses by Słomczyński and Shabad (1997) in the early 1990s, former membership in the Polish United Workers' Party did not have a direct effect on individuals' occupational fates in the post-1989 period (see also Mach 2000). Certainly, a certain segment of the *nomenklatura*, particularly the political elite, "landed well" and remained in privileged positions from the beginning of the transformation (Tarkowski 2011). En masse, those who were mid-level managers, rather than top or low-level managers, were able to exchange the political capital they acquired under the old system for an advantageous position within the new one. Thus the widespread perception in Eastern Europe that nothing changed, that those who were privileged before the system change retained their advantageous positions, was only partially confirmed by the evidence for Poland. Generally speaking, the *nomenklatura* positions were differentiated, and so were their effects. The old *nomenklatura* is no longer associated with the upper class (Goryszewski 2014).

In line with developments in sociology across the world, Polish scholars of class, stratification, and mobility increasingly turned their attention to gender (e.g., Wong 1995; Glass and Marquart-Pyatt 2008; Siemieńska 2005; Łobodzińska 2000; Krymkowski and Domański 1997; Dubrow 2007). Findings show that Polish women are disproportionately among the unemployed, receive lower wages in comparison with men, face structural barriers that have continuities with the communist past, and have lost policy battles in the post-communist era. These studies indicate that women in general are losers in the market transition.

Class and stratification research in Poland after 1989 would not be possible without the boom of quantitative sociological surveys on these topics. Some of these surveys focus on selected generations: Maria Zielińska (2006) investigated a "generation of the martial law" (those who were around 20 years old in 1981) and Bogdan Mach (2003; 2005) studied a "generation of historical hope" (those who were 18 years old in 1989). The differences between these generations pertain not only to occupational trajectories and the placement in the social structure but also to their mentality. The younger generation is much more open toward the rules of market economy.

Polish sociology, with its prominent, often Western-trained scholars, including survey methodologists, was well positioned early on to join international social science survey projects and to create many of its own: the 1990s saw Szelenyi and Treiman's 1993 six-nation survey of Social Stratification in Eastern Europe, and Poland's further participation in the International Social Survey Programme. Furthermore, Poland has been in the European

Social Survey since it started in 2002 (and was the winner of the 2005 Descartes Prize). At the same time, we see the continuation of national studies devoted to social structure, as with the POLPAN survey, which currently provides 25 years' worth of panel data (Słomczyński, Tomescu-Dubrow, and Dubrow 2015).

Conclusion and Discussion

In this chapter, we presented some of the main contributions to investigations on class and stratification by Polish scholars and their collaborators throughout the 20th and 21st centuries. Poland has developed a rich tradition of these studies that, in itself, is a testament to the enduring nature of inequality.

Polish studies of class and stratification have reflected the radical social change of their times and often involved collaboration between governments and academics. Polish social scientists of the 1920s and 1930s contended with problems of agrarian society in an age of industrialization and urbanization and the growth of the working class. With public funding, they established research centers in Warsaw on these topics. In Poznań, the Polish Sociological Institute, one of the first in Europe, was created. World War II destroyed Europe and forced Polish social scientists to rebuild their social science research infrastructure.

When the communist regime came to power, Marxist theory dominated the study of class and stratification. Under Stalinism, which was hostile to the social sciences, Polish sociology itself faced an existential threat. After Stalin died, Polish sociology, and class and stratification studies, revived. State Socialism forced a rapid industrialization and urbanization, instituted centralized economic planning, and in so doing radically changed the class structure and the system of stratified rewards. Generations of Polish social scientists were schooled during the communist era, and while they were not as academically free as their Western colleagues, they had access to Western research and training and produced high-quality research. From the 1960s to 1989, the government funded numerous projects that led to key developments in Polish studies of class and stratification, including the framework for distinguishing these two concepts from one another, on theoretical and empirical grounds.

Still, under State Socialism, government intervention in social science curtailed academic freedom. While the Polish communists enabled social sci-

entific analysis of class and stratification, they placed their ideological stamp on it. The Marxist theory of class dominated Polish social science long after it fell out of fashion in the West. For political-ideological reasons, the more neutral-sounding term “social stratification” was preferred over the more partisan term “material deprivation.” Some Polish scholars’ freedom of travel and speech was restricted, creating obstacles to the creation of knowledge.

A pertinent question related to academic life in the People’s Republic of Poland is the extent to which scholars had freedom of expression. There were important changes in time. In the late 1950s:

The leitmotiv of that time was to make sociology “scientific”—*alias*, “empirical.” At that time, those words had a tremendous appeal and were used in defense against dogmatic mumbo-jumbo. This was one of the most important reasons why the new trend won general support so surprisingly quickly among the most brilliant and energetic young sociologists and why, *prominent representatives of the old sociological schools adopted for a long time* an attitude of “friendly neutrality” (Mokrzycki 1974, 50).

Marxist sociology, regardless of its exact definition, remained the Polish United Workers’ Party’s preferred social science ideology. Jerzy Szacki (1993) argues about Polish sociology from the 1960s to the end of communism:

The political authorities changed their methods of exerting pressure on the scientific community. In particular, the pressure became increasingly ideological. This enabled relative freedom of scientific research as long as the conclusions did not question the foundations of the current political system and the ideology which—less and less efficiently—legitimated it. Of course this was only possible at the cost of self-censorship of the non-Marxist sociologists who limited themselves to more or less fragmentary studies or else focused only on such theoretical and methodological topics which, due to their highly abstract and specialist nature, guaranteed (at least spuriously) that this condition would be fulfilled. Marxism was still to remain the only privileged general theory (Szacki 1993, 172).

During the State Socialist era, the language of the state could be found in some of the English-language publications on class and stratification. For

example, Stanisław Widerszpil (1974) began his important monograph on class and stratification in socialist Poland, published in the *International Journal of Sociology*, with a paean to the communist party: “It is one of the principal goals of the Workers’ Party and of the socialist state to create the conditions for the abolition of all social classes and the gradual elimination of social inequality” (5). He goes on to cite and quote Lenin at length. Later in his monograph, Widerszpil discusses changes to the class structure. Of classes, he wrote: “There are also some relics of exploiting classes, called capitalistic and parasitic elements, in towns and in the countryside” (57). It is hard to imagine a Polish social scientist nowadays writing similarly.

The end of State Socialism and the tremendous changes it ushered in prompted Polish social scientists to devote significant efforts to studies of social structure. The graduate students schooled under communism became post-communist professors. They combined their Western training with their long-standing interests in occupations, mobility, and educational attainment to analyze the features of the new Polish class and stratification systems. The newly open political climate and a newfound focus on the social laboratory that Central and Eastern Europe was in the 1990s encouraged more scholars from outside Poland to collaborate with colleagues in the country. Early on, Poland was able to join major international social survey projects and other data collection efforts. Through a long-standing collaboration between government and academia, and with new sources of outside funding, at the outset of the post-communist era, Poland enjoyed a modest but serviceable social science research infrastructure. Polish sociology was able to meet the challenge of asserting itself internationally.

As early as the 1960s, Polish sociologists studying social inequality were publishing in the two leading peer-reviewed journals: *American Sociological Review* (Nowak 1960) and the *American Journal of Sociology* (Sarapata and Wesołowski 1961). The pattern of publishing in these two journals has continued for decades, along with articles published in *European Sociological Review*, *Social Forces*, and other high-impact journals. In recent years, three publications have stood out in terms of bringing Polish class and stratification research to English-speaking audiences. One is the *International Journal of Sociology* (*IJS*), published until recently by M. E. Sharpe (as of 2014, it is published by Taylor and Francis). Under the leadership of Tadeusz Krauze, general editor of the *IJS* from the 1990s to the early 2010s, and with the support of the editorial board, the *IJS* published several special issues devoted to empirical analyses of Soviet Bloc countries, especially Poland. Another

outlet is the *Polish Sociological Review* (PSR), the flagship English-language publication of the Polish Sociological Association. PSR was first published as the *Polish Sociological Bulletin* in 1961, reflecting the resurgence of Polish sociology. *International Sociology*, a flagship journal of the International Sociological Association, is the third major outlet. In 1986, the journal's first year, Wesołowski and Mach (1986a, 1986b) published two articles on a theory of how class and mobility operate in socialist Poland.

In current times, Polish sociology is intricately intertwined with the European Union (EU). With EU monetary help, Poland has allocated millions of zlotys to social science research, funding an impressive number of high-quality projects. The result is a social science research infrastructure more and more in line with Western standards and with European Union specifications. Polish social science is increasingly international, with the government demanding that parts of funding applications be in English. Polish social scientists regularly attend major international conferences and workshops.

The future of Polish studies of class and stratification will undoubtedly retain familiar characteristics, including the mapping of larger societal concerns with scholarly interests, and the continuing collaboration of government and academia. Phenomena of class and stratification survived successive eras of radical social change, even when there was a concerted effort to eliminate them. Polish social scientists will certainly continue to document and explain these powerful social forces for decades to come.

CHAPTER TWO

Class Structure and Social Stratification in Poland from the 1970s to the 2010s¹

Kazimierz M. Słomczyński and Irina Tomescu-Dubrow

Introduction

This chapter explores, on theoretical and empirical grounds, the dynamic relationship between the class structure and the social stratification system in Poland from the socialist era to the European Union era. The main premise, developed by what we call the Warsaw School of studying class and stratification, is that social class and stratification are related yet distinct elements of the social structure. The degree of their independence needs to be assessed empirically, and we provide survey data analyses on this issue. The chapter is structured as follows: (1) a brief definition of core concepts; (2) The Warsaw School of class and stratification—main theses and origins; (3) Mapping social class structures in Poland through time; (4) How classes stratify: empirical evidence for pre- and post-1989 Poland; (5) Conclusion and discussion.

¹ We gratefully acknowledge the contribution that Krystyna Janicka made to the papers on which this chapter draws (Słomczyński, Janicka, Shabad, and Tomescu-Dubrow 2007; Słomczyński, Janicka, and Tomescu-Dubrow 2010).

Social Structure, Social Classes, and Social Stratification—Brief Definitions

In sociology, *social structure* is a major multi-dimensional concept. First, it is a system of interrelated and relatively stable large social groups that defines the main setting where fundamental social processes occur. It is also a normative pattern of behavior that sets limits on thought and action and cannot be changed by any individual will. And it is both the system of social categories of the population and the institutional framework where individuals and families live. In this chapter we focus on population categories, groups, and institutions.

During social change, a given system of population categories, groups, and institutions can suddenly cease to fit the surrounding world. Dynamics of the social structure, including radical changes, incur tensions between people and groups. Change, maladaptation, and tensions can be called “cracks in the social structure” that reflect “polarization processes.”²

By *social classes* we mean groups that control various aspects and varying amounts of social resources that are important for the functioning of the capital market, the labor market, and the consumption market. This definition borrows from both Marx’s and Weber’s approaches to social class. Control over the means of production and services through ownership, and control of labor processes through managerial and occupational qualifications and skills, as well as the presence of financial resources which can be used to acquire desired goods, are important criteria of class subdivisions. If particular forms of markets are underdeveloped—such as the capital market in the communist system—other institutions, including political ones, act as surrogates. In any event, ownership relations, control over labor, and dominance over consumption are the ground where social classes evolve, and within this process, individuals feel that they are separate entities and can acquire a social and cultural identification. The class structure as the basis of social inequalities is, and has been, the key to analyzing the social structure.

² For an explanation of the concept of polarized social-class structure, see Słomczyński and Janicka (2008); Słomczyński, Janicka, Shabad, and Tomescu-Dubrow (2007); Słomczyński, Janicka, and Tomescu-Dubrow (2010); and Janicka (2010).

Social stratification is the existence of structured inequality among persons with respect to generally desired goods. To the extent to which one's social class position impacts the chances of obtaining such goods, stratification is a consequence of class structure. Put differently, "who gets what and why" (the key stratification question) depends on "who controls what" (social class). The two concepts, while related, are not identical. Maintaining this distinction, which has direct implications for empirical analyses, is at the core of the analytical approach we refer to as the Warsaw School of studying social class and stratification. Before we discuss the School in more detail, we outline the major objective indicators of stratification and how stratification operated under different types of labor markets in Poland.

Labor Market Functions and the Objective Indicators of Stratification

Formal education, occupational rank, and job income are the primary dimensions of social stratification. The secondary dimensions, determined by the primary ones, deal with the standard of living—housing conditions, possession of durable goods, and various symbols of social status related to lifestyles.

Educational achievement and occupational status are objective measures of inequality, as is job income. The relationship of the first two indicators can be analyzed in terms of allocative efficiency: the stronger the relationship between education and occupation, the higher the allocative efficiency. In turn, the stronger the relationship between occupational status and income—particularly job earnings—the higher the distributive efficiency. It can be demonstrated analytically that the higher the allocative and the distributive efficiency are, the higher the degree of meritocracy will be.

In both centralized and decentralized economies, education is considered a key allocator of persons to jobs. In socialist-era Poland, prescribed rules specified the education level required for a given occupation; education was also a criterion for the distribution of social rewards. However, politico-administrative methods, particularly appointments to certain jobs by the communist party, also influenced allocative efficiency. As far as distributive efficiency went, the principle was that rewards should be distributed on the basis of individual effort. However, due to the malfunctioning of the labor market and egalitarian policies, the practice was different. In pre-1989

Poland, occupation and job income correlated at much lower levels than in Western European countries.

After the 1989 system change, in the early years of Poland's post-communist transformation, the correlation between education and occupation decreased, mainly due to the rapid changes in the education system and the inflation of education in general. Over the first 15 or so years of the post-communist transition, it increased to a level that was typical of the 1970s (see also Domański 2011). The distribution of income among occupations began to be influenced by the job demand-supply principle operating in the free-market economy.

Perversities of Labor Markets: From Political Segmentation to the Free Market

Labor markets in the Soviet bloc functioned differently than those in the West, due to political segmentation.³ Political segmentation stemmed from, and was perpetuated by, the logic of central planning and strict administration by political entities. It was tied to the *nomenklatura* system, as certain jobs, generally managerial ones, were reserved for direct control by the communist party. Other segments of the population were also affected by political decisions pertaining to forced industrialization. In particular, the working class in mining and heavy industry was privileged in comparison with other manual workers. The state and party apparatus controlling the intelligentsia and the peasantry—in terms of their economic situation—changed their role in the entire class structure from what it had been before World War II. Capitalists and large landowners were also eliminated as social classes because of political decisions and not economic factors.

The logic of central planning and strict administration by political entities is quite different than the competition-based logic of the free market. We assume that the class structure in the era of “real socialism” differed significantly from the class structure in the post-1989 years of fledgling capitalism. The conceptualization of the class structure in communist society is based on the assumption that control of economic life by the party and the

³ For the traditional forms of the labor market segmentation in Poland, see Domański (1990).

state apparatus reduced the importance of the criterion traditionally used to identify social classes in capitalist societies, that is, ownership of the means of production. Starting in 1989, changes in the social structure manifested themselves not only in transformations of its existing elements but also in the emergence of new ones, mostly as a result of adopting the free-market economy. Analyzing the transformation of class structure in the last decades, we need to keep in mind the enormity of changes that occurred after the collapse of communism. New classes include entrepreneurs (business owners who employ workforce) and “captains of capitalism” (managers on the free market). “Old” classes change, as in the case of peasants. Based on the criterion of land ownership, they continue to be the same class, but due to the new linkage with the free market of agricultural produce, they turned into farmers. These are examples of how the system of classes in Communism transformed into a class system under Capitalism.

The Warsaw School of Studying Social Class and Stratification

MAIN THESES

The Warsaw School of studying social class and stratification holds that social class and social stratification should be treated as related, yet analytically distinct, phenomena. Classes, as groups which, to different extents, control skills and resources important for the functioning of different markets—particularly capital, labor, and consumption markets—form the basis of social inequalities: peoples’ social class position impacts their chances of obtaining generally desired goods, such as higher education, better jobs, and higher income. Class relationships, whether at the group or individual level, influence the attitudes, behaviors, and fortunes of individual class members.

The Warsaw School makes two major assumptions. The first is that classes are only *partially* ordered by their definitional criteria. For instance, in terms of workplace influence, managers are located much higher than clerical workers and technicians, but it is difficult to determine their position vis-à-vis entrepreneurs or the self-employed. Business owners are at the top according to the criterion of “ownership of the means of production,” but how they compare with professionals on the “skill” dimension depends on many

specific factors. Similar difficulties arise concerning other defining class criteria, such as the nature of work. This is why scholars of the Warsaw School treat social class as a nominal rather than ordinal variable.

In the framework that the Warsaw School advocates, social stratification is a consequence of class structure, and one can pose the question: *How do social classes stratify?* as an empirical one. This approach is more useful, scientifically, than declaring *a priori* the hierarchy of classes (e.g., “upper class,” “middle class,” or “lower class”).

It is, however, possible, to rank social classes—those formed by the social change initiated when communist parties took power in Central and Eastern Europe, and those that emerged after the communist regimes collapsed—in terms of stratification indicators. Stratification position, such as household income, implies social hierarchy. Classes differ, on average, with respect to the level of income, since income is a consequence of control of resources on the capital, labor, and consumption markets. Income, then, is a secondary characteristic of class.

Under this understanding, the Warsaw School can legitimately investigate the hierarchy of classes according to the external criteria of the extent to which class members participate in the pool of unequally distributed goods. In the statistical sense, individuals belonging to social classes (expressed as a nominal variable) and their stratification position (usually expressed as an interval variable) are interrelated characteristics. The strength of this relation depends on place and time and is affected by long-term trends and occasional fluctuations.

The second assumption deals with country- and time-specific class schemas. The Warsaw School does not take sides in the debate over whether these relationships are characterized by exploitation, some other dominance/subordination process, or even contractual relations, as in recent Marxist (Wright 2002) or Weberian (Goldthorpe 2000) approaches. On the cross-national applicability of class schema, the Warsaw School relies on theoretical premises of sociological discussions concerning the class structure of contemporary societies since at least the mid-20th century. According to these premises, in the course of macro-social changes, some class attributes are universal and apply equally well to a diverse set of countries, while others increase or decrease in importance for a given time and space; they are country-specific. Moreover, the Warsaw School claims that class schemas are also time-bound and should be substantially modified for different time periods, especially after instances of radical system change.

ORIGINS

The Warsaw School relies on three major sources of theoretical contributions. One is the work of Stanisław Ossowski, particularly his book *Class Structure in the Social Consciousness* (1963). Ossowski synthesized the vast materials dealing with social relations across time and space into a set of assumptions regarding the core characteristics of social classes. The first assumption is that classes are the most comprehensive groups in the social structure. Second, class divisions are about social statuses that are connected to a system of privileges and deprivations; these classes are not determined by biological criteria. Privileges and deprivations result in the existence of higher and lower social positions. Third, there is little class mobility; that is, class membership is relatively permanent. Fourth, classes are characterized by class interests, class consciousness, and class isolation.

The second source of influence is the theoretical contributions of Julian Hochfeld. In his endeavor to interpret and systematize the Marxist theory of class structure, he did not confine himself solely to class-type social structure. He was also interested in Max Weber's theory of "estates," bureaucracy, and power. Hochfeld clearly stated his position on the "stratification type" of social structure. He saw class structure in Marx's sense and "estate order," or stratification, in Weber's sense as two relatively autonomous "structurations" of a society.

The third source of influence for the Warsaw School concerns the balance between theoretical arguments and empirical findings on the social structure in Poland. This refers to the work of Jan Szczepański, who made several theoretically motivated generalizations on the social structure on the basis of empirical knowledge. When discussing social structure in Poland, he recalled Central and Eastern European history. He applied this principle of historicism with considerable skill and at various "levels" of deliberation. Moreover, Szczepański attempted to create a coherent paradigm that combines fundamental principles taken from the Marxist and Weberian theory of society with the specific procedures of investigation developed within the methodologically oriented, "positivistic" sociology.

SYNTHESIS

In the late 1960s Wesołowski built on Ossowski, Hochfeld, and Szczepański's arguments that social classes are defined by complex criteria that blur their hierarchical location. He advanced the theory on the distinction between

social class and social stratification and promoted seminal empirical research on this topic.⁴ As in other social class and stratification approaches, the Warsaw School, founded by Wesołowski and continued by his collaborators, incorporates neo-Marxian and neo-Weberian theses.

Within this school it is assumed that the class structure as the basis of social inequalities is, and has been, the key to analyzing the social structure. Social classes are defined as groups that control various aspects of, and to a differing extent, social resources important for the functioning of the capital, labor, and consumption markets. Ownership relations, control over labor, and dominance over consumption are important criteria for class subdivisions. They form the ground where social classes evolve, and in this process individuals acquire social and cultural identification (see also the section on Brief Definitions in this chapter). How relevant any of these criteria are for class formation and differentiation in Poland depends on the given socioeconomic and political system. Research of the Warsaw School mapped the social classes during socialism and after the system change, providing clear theoretical and empirical justifications of the respective schemas.

Mapping Social Classes during State Socialism and after the System Change

The class structure of a given society, including Poland, is dynamic; it changes as socioeconomic and political realities change. Proponents of the Warsaw School provide a series of conceptualizations of the Polish class structure to capture the country's social fabric in specific historical periods. While they display substantial commonalities stemming from a shared theoretical framework and the continuity of certain classes across time, the schemas also present marked differences, warranted by the distinctive features of the economic systems in Poland. We discuss these schemas, and their theoretical underpinnings, below.

⁴ Włodzimierz Wesołowski prepared theoretical grounds for the empirical study of social structure in Polish cities (Szczecin, Koszalin, and Łódź) in 1964–1965; see Wesołowski (1970). Cf. Chapter 1.

CLASSES OF THE LATE 1960s AND 1970s

Commonly accepted conceptualizations of the class structure of a socialist society are based on the assumption that state control of the economy and minimal private ownership reduce the importance of ownership of the means of production for class distinctions. A major insight of the Warsaw School was that the declining importance of ownership as a class criterion was paralleled by the growing relevance of control over the labor process: central planning and political oversight of the economy increased the role of those social classes responsible for supervising the work process, that is, how the state's directives were carried out to "achieve the good of the people."

This reformulation enabled class and stratification studies to move beyond the rather crude schema of classes that survived the socialist revolution, that is, the working class, white-collar workers (commonly called the "intelligentsia") and the peasantry.^{5 6} While past empirical research showed that such division captured some inequalities expressed in terms of basic stratification variables (education, occupation, and income), it did not reflect the structure of socialist societies adequately, because it did not account for existing interclass differences. In the early 1970s, Słomczyński (1972) documented that variation of basic stratification variables *between* the three basic classes was not greater than the within-class variation (for a review of the issue of interclass differentiation, see Wesołowski and Słomczyński 1977).

Proponents of the Warsaw School developed the following class structure, which took into account the predominant features of the mode of production in socialist Poland, and arguably other, similar Central and Eastern European countries, as of the 1970s (see Słomczyński and Kohn 1988; Kohn and Słomczyński 1990; Słomczyński and Shabad 1997). The basic class schema is presented in Table 2.1, with the following categories:

⁵ In the 1950s and 1960s, Marxists thought that the landed aristocracy and the bourgeoisie were eliminated following the changes that had taken place in the "early communist period"—such as agricultural reform, nationalization, and expansion of industry. While the working class, the intelligentsia, and the peasantry survived the socialist revolution, they were expected to fade in significance as communism consolidated.

⁶ In terms of occupational groups, the core of the working class was composed of skilled and unskilled factory workers. The intelligentsia consisted of professionals, technicians, and office workers. The peasantry included individual and collective farmers.

Table 2.1. The class pattern of Poland for the 1970s

Main criterion—nationalization	Traditional divisions	Proposed class pattern ^a	Commentary
Communist (nationalized economy)	Intelligentsia (broadly defined)	Managers (<i>Nomenklatura</i>)	Political criterion
		Non-manual workers	Very differentiated
		First-line supervisors	Control of labor
	Working class	Core-industry working class	Primarily in heavy industry
		Peripheral working class	Contains low-skilled workers
Private sector	Peasants	Peasants	A considerable proportion in the shadow economy
	Others	Private entrepreneurs	

1. *Managers*: In a nationalized and centralized economy, it is control—not ownership—over the use of the means of production that is crucial. What distinguishes managers from other state employees is their authority to decide what is to be produced and the methods of production. In the course of their daily job, managers implement political and ideological goals of the state; this influences their class interests, their relation to other classes, and their relative importance to the party. Until 1989, this class corresponded to administrators of state-owned property and was part of the *nomenklatura*.

2. *Non-manual workers* differ from manual workers based on the mental component of their work. The mental component of work is associated with job autonomy, typical for white-collar workers. It is also a kind of “capital” that people can use to demonstrate their value on the labor market.

3. *First-line supervisors*: Immediate control over labor separates first-line supervisors from supervisees. The coordination of work is delegated to first-line supervisors. These supervisors are forced to defend their actions to the workers immediately below them and to the managers above them. Unlike managers, they do not make any decisions concerning what should be produced and how the work should be done. However, their immediate control over labor identifies them as a class exercising control over others.

4–5. *Manual workers* differ by branch of economy. Manual workers involved in factory production are the core of the working class; the rest are a peripheral element. There is an economic and a political rationale for viewing manual factory workers as a class all their own. Economically, from the 1950s to the 1980s, manual factory workers were crucial for industrialization. As such, manual factory workers exerted great influence over the means of political struggle, such as strikes and demonstrations. Manual workers in mining and heavy industry, especially in Poland, were the main force in direct bargaining processes with the government (it was shipyard workers in Gdańsk who started the Solidarity movement). Thus we distinguish between the *core-industry working class* and the *peripheral working class*.

6. Within the agricultural sector, the *peasantry* had a distinctive relationship to the centrally controlled economy. The peasantry owned land but not the distribution networks. Thus, while farmers could farm their land, they were beholden to the state for their economic survival.

7. Outside of agriculture, owning the means of production is the class of *private entrepreneurs*, the petite bourgeoisie. They are a residual class in any socialist society. In a socialized economy, ownership of the means of production—the basic category of Marxian class theory—does not differentiate people. Though residual, they should be included in the class scheme to complete the division of the population into classes and because of their link with traditional forms of economic activity. We are referring to the increasing importance of the black market/shadow economy of late State Socialism in Poland.

In this schema managers are identified with the *nomenklatura*. The *nomenklatura* in itself was simply “a list of positions, arranged in order of seniority, including a description of the duties of each office” (Harasymiw 1969, 121).⁷ It was a structural arrangement through which the communist party ensured that “appropriate” people (i.e., those loyal to, and often members of, the party) were placed in important positions and that they carried out party directives efficiently and effectively. It enabled the hegemonic party in Poland and elsewhere in Central and Eastern Europe to exert influence in all layers of society. At the same time, it created systemic inequalities in career opportunities, rewards, and resources, both economic

⁷ See also Słomczyński and Lee (1993, 281–91).

and socio-political ones (for analyses on Polish data from 1978 and 1987, see Słomczyński and Lee 1993).⁸

Communist party membership and the *nomenklatura* were interrelated factors, but they did not fully overlap. By the late 1980s, the number of party members, while drastically reduced during the Solidarity years, was still around two million. At the same time, the national- and local-level *nomenklatura* together covered more than one million jobs, including practically all managerial positions. This system was especially relevant for the social class structure in socialist Poland.

As the political segmentation of the labor market became entrenched and structural adjustments associated with post-World War II modernization took place, “real existing socialism” had an increasingly complex class structure. The emergence, and toleration by the party-state, of the shadow economy, particularly in the 1980s, also contributed to the growing complexity of the class structure.

The class structure for Polish society until the end of communism had a largely similar shape, with one notable change. Over time the non-manual workers became increasingly heterogeneous, which eventually prompted scholars of the Warsaw School to separate the class of office workers from that of experts (see Słomczyński and Shabad 1997).

CLASSES OF THE POST-COMMUNIST TRANSFORMATION AND CONSOLIDATED MARKET ECONOMY

Under the post-1989 system, ownership of the means of production soon re-emerged as an important class criterion. At the same time, organizational control over labor, as well as resources for, and competences in, running a business, continued to play major roles in class formation and differentiation. Considering the size of capital, employment of the workforce, and level of management, as well as the level of qualifications and type of job (non-manual versus manual), the Warsaw School mapped the class structure of the post-communist society as follows:

1. *Employers-Entrepreneurs* include only individuals who have their own business and employ workforce other than their relatives. This category

⁸ In some publications (cf. Słomczyński and Kohn 1988), authors speak of “disposers of nationalized property” instead of “*nomenklatura*.”

emerged in the process of post-communist transformation, as the Polish economy was adopting capitalist-market features. In the communist era the relatively few entrepreneurs who employed workforce were classified (together with independent workers) as what was called the “private initiative.” The *nomenklatura* and owners of small private enterprises were the main source of recruits for the post-1989 entrepreneurs.

2. *Managers* are equivalent to senior managerial staff in production facilities and services, as well as senior administrative personnel. Under socialism, this category was part of the *nomenklatura*, corresponding to the administrators of state-owned property. During the years of economic restructuring, these elites oversaw privatization and largely succeeded in reproducing their pre-1989 social positions. After the system change, the class of managers also received a noticeable inflow from office workers.

3. *Experts-Professionals* are a category that includes all those who work in jobs requiring tertiary education. Traditionally, they constitute the upper layers of the intelligentsia (under socialism, too). While the role of this class changed during the 1989 “revolution” and the economic and political transformation processes, educational qualifications remain its distinguishing characteristic.

4. *Supervisors* directly supervise the work processes within relatively small working teams, usually of two to 25 people. Unlike managers, their authority is limited to work processes. In post-1989 Poland, supervisors come from the former (i.e., pre-1989) category of white-collar workers.

5. The *self-employed* include owners of workshops who do not employ a workforce apart from their relatives. Under communism, they formed the core of the “private initiative” and were a relatively homogeneous group of craftspersons, as well as small producers and traders. As a result of the post-communist transformation, this group became internally diversified and also gave rise to the class of entrepreneurs.

6. *Technicians and office workers* are distinguished from other classes, especially manual workers, by the degree of, and reliance on, mental effort in their work process. They correspond to a large extent to the pre-1989 class of white-collar workers, excluding, however, experts, who, since the late socialist era, have formed a separate class category (Słomczyński and Shabad 1997).

7. *Skilled manual workers* are primarily factory workers. Under socialism, they were called the “vanguard of the working class.” Their role after 1989 changed radically, particularly in heavy industry.

8. *Unskilled manual workers* are employees who can be trained to perform various work-related activities in a relatively short time, usually no

longer than six months. A considerable proportion of this group works in services, doing simple tasks.

9. *Farmers* are highly varied in terms of qualifications and affluence, but they all share the feature of ownership and cultivation of land. Prior to 1989, farmers, known as peasants, were largely dependent on the state for buying machinery and other means of production, as well as for contracts regarding agricultural production. During the post-communist transformation, competition from Western agricultural production became a significant problem for Polish farmers.

This schema keeps the basic class distinctions for the late socialist era but introduces important modifications for specific categories to account for the post-communist transformations. As indicated earlier, when analyzing the “old” elements of the class structure, one should realize the magnitude of change that occurred after the collapse of communism. For instance, based on the criterion of land ownership, the peasants continued as a class after 1989. However, the linkage with the free market of agricultural production means that this class’s core features have changed: it no longer depends extensively on the state. It has turned into a different class, one of farmers who need to compete on national and European markets.

It is worth comparing the Polish schema with Wright’s (1997) WRI and the Erikson-Goldthorpe-Portocarero EGP schemas (Erikson, Goldthorpe, and Portocarero 1979; see also Leiulf-srud, Bison, and Jensberg 2005; Leiulf-srud, Bison, and Solheim 2010). Table 2.2 shows the correspondence between the three approaches to mapping social classes.

Some categories in the WRI and EGP schemas correspond perfectly with the Polish schema. For example, the WRI “petite bourgeoisie” and the EGP “small proprietors without employees” match self-employed well. Similarly, the WRI “non-skilled workers” and the EGP “semi- and unskilled manual workers (not in agriculture)” correspond to unskilled manual workers. However, neither WRI nor EGP employs the full range of criteria of the Polish schema. For example, WRI lacks a division of type of work and, consequently, it does not distinguish between manual and non-manual work, or between agricultural and non-agricultural work. Consequently, for the categories of “technicians and office workers” and “farmers,” one could find appropriate categories only among those that also fit in other places. The main problem with the EGP schema is that in distinguishing class categories, it does not use the criterion of control over the work of others. Thus EGP has no specific categories fitting managers, and, in contrast to the Polish schema,

Table 2.2. The Polish class structure for emerging capitalism compared to the schemas of Wright and of Erikson-Goldthorpe-Portocarero

The Polish class structure schema	Wright's typology ^a	The Erikson-Goldthorpe-Portocareroa typology
Employers-entrepreneurs	1. Capitalists 2. Small entrepreneurs	I. Higher grade public service officials IVa. Small employers
Managers	4. Expert-managers 5. Credentialed managers 6. Un-credentialed managers	(I. Higher grade of public service officials) (IIIa. Routine non-manual employees, higher grade)
Experts-professionals	(4. Expert-managers) 10. Experts (7. Expert-directors)	II. Lower grade public service officials IIIa. Routine non-manual employees, higher grade
Supervisors	(6. Unskilled managers) 7. Expert-supervisors 8. Credentialed supervisors 9. Un-credentialed supervisors	(V. Lower grade technicians and supervisors) (IIIb. Routine non-manual employees, lower grade)
Self-employed	3. Petite bourgeoisie	IVb Small proprietors, without employees
Technicians and office employees	(11. Skilled workers)	IIIb. Routine non-manual employees, lower grade V. Technicians and supervisors
Skilled manual workers	11. Skilled workers	VI. Skilled manual workers
Unskilled manual workers	12. Unskilled workers	VIIa. Semi- and unskilled manual workers (not in agriculture)
Farmers	(2. Small entrepreneurs) (11. Skilled workers) (12. Unskilled workers)	IVc. Farmers and self-employed workers in agriculture VIIb. Semi- and unskilled manual workers in agriculture

^a A partial correspondence of categories of the Wright and EGP schemas with the Polish one is indicated with parentheses ().

supervisors are grouped together with technicians. Domański (2000a) has applied the EGP and/or Wright schema, and these instruments explain less inter-class variation in education, occupational status/rank, and income than the Polish schema.

The Polish class schema in Table 2.2 is optimal for analyzing Polish society after the system change up to 2008. Afterward, significant changes occurred in the social structure among the broadly defined category of “white-collar workers,” that is, technicians and office workers. Above all, we should identify the category of specialized workers in finance as well as financial and banking dealings, non-governmental organizations, new information technologies, and various public services. These form the category of *specialists*. They differ from *experts* based on the criterion of formal qualifications: while the category of experts requires at least a master’s degree (*magister*), for technicians and office workers even a bachelor’s degree (*licencjat*) is not required.

Service sector workers, sometimes also called “manual-and-clerical staff,” represent another increasingly salient group in Poland’s full-fledged market economy. It includes sales personnel in supermarkets and department stores and people working in hair and beauty parlors or in the catering and restaurant industry. They are characterized by precarious employment—non-standard, poorly paid, and unprotected.

As of circa 2005, the subdivision into highly skilled workers and the rest has become more clear-cut. We consider this when we differentiate between highly skilled manual workers and workers performing simple tasks, regardless of their actual occupational titles. Skill requirements and qualifications count most in this subdivision. If a job requires no more than a few weeks of training, the person performing such a job will be classified as a worker performing simple tasks even if he or she holds a diploma, thereby confirming his or her qualifications at the level of a skilled worker.

How Classes Stratify: Empirical Evidence for Pre- and Post-1989 Poland

Earlier in the chapter, we discussed the theoretical difference between class and social stratification. Now we present empirical grounds for this distinction. We argue that two conditions are necessary and sufficient to show the class dimension of society:⁹

⁹ It should be pointed out that the Warsaw School advocates treating social class as a nominal variable whose categories can be ordered—from classes placed at the top of the social ladder to those at the bottom—with reference to external criteria, that is, the characteristics of a person’s social position.

- (1) The distribution of averages: Social classes differ significantly with regards to the mean value of important characteristics of social position;
- (2) The distribution of variance: Differentiation of important characteristics of social position is significantly greater *between* classes than is differentiation within classes.

We summarize survey analysis results for Poland in the socialist years and during various periods of the post-communist era.

THE LATE 1970s

For the 1970s, the relationship between class and stratification was originally reported in Słomczyński and Shabad (1997, 168),¹⁰ who used data from the 1978 Social Structure and Psychological Functioning survey of the adult urban population (N = 1,500). Results showed that social classes differed considerably with respect to social status (expressed as a linear combination of formal education, occupational rank, and job income) and that class criteria played an important role in the unequal distribution of valued goods. The authors also reported that in 1970s Eastern Europe, the correlations between class and the three objective indicators of stratification were no lower than corresponding correlations in the West. During the communist era, Central and Eastern European countries had social classes that differed with respect to particular positions in the stratification system.

1988 TO THE EARLY 2010s

Since the late 1980s, empirical research on the relationship between social class and stratification has been greatly facilitated by the Polish Panel Survey, POLPAN 1988–2013 (polpan.org). Administered by the Institute of Philosophy and Sociology of the Polish Academy of Sciences, under the leadership of Kazimierz M. Słomczyński, POLPAN is based on a representative sample of working-age adults interviewed face-to-face every five years since 1988, with renewal samples added since 1998 (concerning POLPAN's origins, see Chapter 1). It contains respondents' detailed occupational histories as well as

¹⁰ For more details on the analysis, see Słomczyński (1998).

their formal education and economic standing. This allows scholars, among others, to check if social classes meet the two necessary and sufficient conditions of being stratified, namely (1) significant mean differences between classes in social status and its components, and (2) greater between-class than within-class variation in status and its components.

To measure social class as a nominal variable, we applied several criteria. The first was employment status, to distinguish those who are not employees from employees. For people who are not formally employed, we extracted three categories: employer-entrepreneurs, self-employed outside of agriculture, and farmers. Among employees, we first extracted managers (individuals at the high echelons of organizational structures) and supervisors (directly controlling the labor). We further distinguished among the rest of the employees based on the qualification and skill assets they have on the labor market. Non-manual workers were divided into expert-professionals (performing jobs requiring higher education) and technicians along with office workers. Manual workers were also divided according to their level of skills. All these classes correspond to those presented in Table 2.2.

Using POLPAN, peoples' social status (their stratification position) can be expressed as a linear combination of formal education (measured in number of years of schooling),¹¹ occupational status (measured on the Socio-Economic Scale, which associates specific values with each of the essential occupational units in the *Social Classification of Occupations*),¹² and earnings (respondent's total income or household income per capita).¹³

Table 2.3 presents, for each of the six survey waves (1988 through 2013), the degree of compatibility between the three stratification indicators and the overall stratification position, which is measured by the common factor. Since the correlations between variables are positive, the weighting factors must

¹¹ In POLPAN, the original education measures are nominal, corresponding to specific categories of completed education. Measures of education in years are computed based on the assumption that incomplete primary education corresponds to five years of schooling, completed primary education to eight years, basic vocational education or incomplete secondary education to 10 years, comprehensive secondary or vocational education to 12 years, incomplete tertiary education to 14 years, and completed tertiary education to 17 years.

¹² The *Social Classification of Occupations* and the pertaining occupation scales are discussed in another publication (cf. Domański, Sawiński, and Słomczyński 2009).

¹³ Income is expressed in permanent Polish national currency, złoty, converted at the index of real average income and gross monthly earnings.

also be positive. Thus the relationship between indicators and the identified factor is interpreted unambiguously: the higher the formal education, occupational status, and earnings of an individual, the higher their overall stratification position. Thus this position corresponds to the notion of “vertical dimension” in social stratification.

Factor loadings for education and occupation are consistently high, indicating a strong correlation between each of these variables and the factor. Comparing results across waves, it is interesting to notice that although changes over time are small, they involve an increased balance between factor loadings: for education and occupation there is a slight decrease, while the factor loading for income increases. The growing role of income is visible beginning with 2003, the year before Poland joined the European Union. In all instances, the eigenvalues associated with the factor are around 2, and the variance explained is above 60 percent, which means that the measurement model for social status fulfills the basic statistical requirements for constructing complex variables.

Table 2.3. Formal education, occupational status, and earnings as components of overall status in the POLPAN Survey 1988–2013

Components of stratification position	Year					
	1988	1993	1998	2003	2008	2013
	Factor loadings					
Overall status—stratification position						
Formal education	0.910	0.912	0.907	0.895	0.859	0.871
Occupational status	0.909	0.896	0.901	0.827	0.879	0.839
Earnings	0.449	0.499	0.469	0.612	0.657	0.615
Statistics of goodness of fit						
<i>Eigenvalue</i>	<i>1.854</i>	<i>1.883</i>	<i>1.854</i>	<i>1.860</i>	<i>1.943</i>	<i>1.842</i>
<i>% of explained variance</i>	<i>0.619</i>	<i>0.628</i>	<i>0.618</i>	<i>0.620</i>	<i>0.648</i>	<i>0.614</i>

Source: POLPAN data, 1988–2013.

It is worth mentioning here how individual stratification indicators relate to each other over time. In Poland in 1988, the correlation of formal edu-

cation and occupational status was rather high ($r = 0.745$) and in line with statistics for Western Europe. One can infer that the application of top-down instructions on “who should work where,” specific to central planning, meant that allocation of individuals to occupational positions imitated market mechanisms and resulted in the relative optimization of the compatibility of education with qualifications required for various occupational roles. In 2013, 25 years after the end of State Socialism and with Poland a full-fledged EU member, the link of education and occupational status was weaker ($r = 0.612$).¹⁴

The correlation of education and earnings was lowest in 1988 ($r = 0.209$). Over the years, we see a slight increase, suggesting a minor shift of the Polish labor market toward meritocracy: $r = 0.211$ for the transformation period up to 1998; $r = 0.365$ in the period 1998–2003, prior to EU integration (see also Domański 2011). Afterward, there was basically no change. In 2013, nine years after EU integration, the correlation coefficient was 0.363.

The pattern is similar for the relationship between occupational status and income. In socialist Poland, they correlated at $r = 0.210$. Actually, in 1988 formal education and occupational status explained only about 5 percent of the differentiation of earnings. During the transition period 1993–1998, the strength of the relationship between occupational status and earnings improved a little ($r = 0.297$). Afterward it remained stable, through the pre-EU integration period (1998–2003) and up to 2013, when $r = 0.265$.

Table 2.4 presents the hierarchy of social classes in 1988, in reference to external criteria involving peoples’ overall social status, as well as its components—education, occupational status, and income. The hierarchy can be assessed by examining the average values of the overall stratification position and the averages for each of its components. Indeed, the hierarchy is clear: the managers (*nomenklatura*) are consistently at the top. Non-manual workers are positioned further down, followed by the self-employed, the core-industry working class, the peripheral working class, and peasants. This pattern occurs for overall stratification position and also for formal education and occupational status. However, there is reshuffling in terms of earnings: the self-employed are better off than non-manual workers, while the peripheral working class is worse off than peasants. Overall, the differences in mean

¹⁴ Results obtained using POLPAN data. POLPAN 1988 is nationally representative for working-age adults in 1988 Poland. So is the weighted sample of the 2013 wave (for Poland in 2013).

values of status and its components show that in 1988, social classes fulfill the first condition for being called highly stratified.

Standard deviations, the F statistics, and eta coefficients are relevant for the second condition. With some exceptions, standard deviations are smaller than the mean values, which indicates a considerable cohesiveness of social classes. The F statistics show that between-class variance is higher than within-class variance. And, finally, according to the eta coefficients, social class explains 58 percent of the social stratification variance and from 24 percent to 67 percent of its components. Thus social classes fulfill the second condition for being called highly stratified.

Table 2.4. Mean value of overall status and its components for social classes in the last years of communism, POLPAN 1988

Social class	Overall status (stratification position)	Overall status components			N
		Formal education	Occupational status	Earnings	
	Mean value in standardized units ($\mu = 0, \sigma = 1$) (standard deviation)				
Managers (<i>Nomenklatura</i>)	1.624 (0.654)	1.548 (0.699)	1.754 (0.267)	1.475 (0.987)	130
Non-manual workers	0.407 (0.341)	0.618 (0.583)	0.512 (0.478)	0.086 (0.384)	1225
Core-industry working class	−0.302 (0.601)	−0.453 (0.657)	−0.206 (0.340)	−0.159 (0.211)	1295
Peripheral working class	−0.744 (0.435)	−0.573 (0.641)	−0.726 (0.321)	−0.498 (0.640)	686
Peasants	−0.892 (0.503)	−0.578 (0.430)	−0.975 (0.567)	−0.458 (0.507)	835
Private entrepreneurs	0.101 (0.711)	0.259 (0.759)	0.194 (0.488)	0.360 (0.518)	130
Statistics					
η^2	0.581	0.554	0.670	0.239	
F(df)	144.59 (5)*	158.6 (5)*	141.7 (5)*	66.4 (5)*	
* Statistically significant at $p < 0.05$ or $p < 0.01$.					

Source: POLPAN data, 1988.

This is not to say that within-class differentiation, measured with standard deviation, was not present. In the case of overall social status, variability was largest among the self-employed and the core-industry working class: standard deviations for these categories exceeded the respective arithmetic means. For earnings, the standard deviation in 1988 was greater than the arithmetic mean for all social classes, except managers (*nomenklatura*). Regarding eta coefficients, one should remember that classes are identified using job descriptions, hence the particularly strong link. The relationship between social classes and earnings turned out to be the weakest ($\eta^2 = 0.239$).

Table 2.5 presents the mean values of the overall stratification position in the period of 1993–2008, which includes the advanced stage of the system transformation (1993–1998) and the beginnings of the European Union era (2004–2008). In 1993, employers-entrepreneurs were located not only below experts-professionals and managers but also below supervisors. Eventually, employer-entrepreneurs, managers, and expert-professionals climbed to the highest levels of the social ladder. Throughout the 1993–2008 period, manual workers, both skilled and unskilled, as well as farmers were positioned at the lower ends of the social ladder. The distance between the top levels (experts) and the lowest levels (unskilled manual workers) is great: approximately two-and-a-half standard deviations of the standardized metrics of stratification positions. The contrast between entrepreneurs, managers, and experts versus manual workers and farmers is identified in the literature with the winners and losers of the post-communist transformation and used to illustrate the thesis of a “broken social structure” (Słomczyński and Janicka 2005; see also Słomczyński and Janicka 2008).

Again using the external criteria of peoples’ stratification characteristics, Table 2.6 presents the hierarchy of social classes for 2013. This new pattern reflects the changes that occurred in the social structure in recent years, mostly under the influence of new trends on the labor market. These changes include the demand for bachelor-level qualifications. For this reason, white-collar workers with specialist qualifications have been categorized separately. The services sector developed, and with it, the expansion and devaluation of self-employment.

In 2013, the first criterion of class structure—that arithmetic means are significantly diversified—is fulfilled. Employer-entrepreneurs, managers, expert-professionals, and mid-level specialists are at the top of the stratification ladder. Workers performing simple tasks and farmers are at the bottom. On the middle rungs are technicians, office workers and supervisors, who are positioned significantly higher than self-employed people, workers in the

Table 2.5. Mean value of stratification position for different social classes in 1993, 1998, 2003, and 2013

Social class	Overall status (stratification position)			
	1993	1998	2003	2008
	Mean value in standardized units ($\mu = 0, \sigma = 1$)			
Employer-entrepreneurs	0.400	0.648	0.518	0.872
Managers	1.749	1.677	1.350	1.359
Expert- professionals	1.542	1.498	1.550	1.748
Supervisors	0.842	0.232	0.444	0.344
Self-employed	-0.029	0.239	0.013	0.419
Technicians and office workers	-0.264	0.145	-0.109	0.127
Skilled manual workers	-0.588	-0.768	-0.690	-0.693
Unskilled manual workers	-0.963	-0.817	-0.999	-1.049
Farmers	-1.028	-1.016	-0.733	-0.718
Statistics				
η^2	0.738	0.744	0.633	0.752
$F(df)$	375.1(8)*	309.6(8)*	161.9(8)*	229.7(8)*
* Statistically significant at $p < 0.05$ or $p < 0.01$.				

Source: POLPAN data, 1988–2008.

services sector, and skilled workers. In 2013, the position of self-employed people was generally lower than the average for the total population (which for a normalized distribution is 0). This occurred for the first time since 1998.

Social classes identified in Table 2.6 reveal sizable internal differentiation. While classes explain a considerable percentage of variance in overall stratification position and its components, F statistics indicate that inter-class differentiation is not greater, in a statistically significant way, than intra-class differentiation, whether in general (overall status) or in specific cases (except for occupational status). The second condition for class structure, i.e. distribution of variance, is not met here.

However, we are hardly arguing that social class no longer matters. These results mean that current changes in the labor market have introduced new

Table 2.6. Mean value of overall status and its components for social classes during the globalization period in POLPAN 2013

Social class	Overall status (stratification position)	Overall status components			N
		Formal education	Occupational status	Earnings	
	Mean value in standardized units ($\mu = 0, \sigma = 1$) (standard deviation)				
Employers- entrepreneurs	1.822 (1.390)	0.832 (0.933)	1.603 (0.486)	2.387 (4.559)	29
Managers	1.761 (0.556)	1.289 (0.868)	2.166 (0.681)	0.736 (1.314)	44
Experts	1.882 (0.447)	1.610 (0.494)	2.232 (0.364)	0.456 (0.980)	114
Mid-level specialists	0.996 (0.416)	1.249 (0.723)	1.010 (0.258)	0.046 (0.770)	72
Technicians and office workers	0.323 (0.416)	0.442 (0.758)	0.419 (0.357)	0.730 (0.653)	239
Supervisors	0.441 (0.610)	0.544 (0.916)	0.528 (0.430)	0.192 (0.592)	70
Self-employed	−0.113 (0.439)	−0.050 (0.872)	−0.226 (0.038)	0.247 (0.951)	73
Services sector workers	−0.460 (0.419)	−0.103 (0.799)	−0.460 (0.192)	−0.308 (0.281)	266
Skilled manual workers	−0.385 (0.382)	−0.262 (0.732)	−0.381 (0.233)	−0.004 (0.480)	132
Unskilled manual workers	−0.766 (0.370)	−0.553 (0.717)	−0.777 (0.311)	−0.227 (0.455)	415
Farmers	−0.878 (0.466)	−0.645 (0.572)	−0.886 (0.020)	−0.114 (1.073)	135
Statistics					
η^2	0.786	0.465	0.907	0.174	
$F(df)$	89.2 (10)	75.5 (10)	141.5(10)*	20.14 (10)	
* Statistically significant at $p < 0.05$ or $p < 0.01$.					

Source: POLPAN data, 2013.

types of divisions that the schema we employed does not capture. Specifically, if the categories of mid-level specialists, service workers, and manual workers are divided into those with standard employment and those with precarious jobs, then the second criterion is fulfilled. The lesson from our analysis is that

new criteria of class are needed. Indeed, the work of Kiersztyn (2015) shows that the precariat matters.

Conclusion and Discussion

After World War II, the capitalist class structure of Central and Eastern Europe was replaced with a socialist-specific one, which incorporated the intelligentsia, the working class, and the peasantry as social groups “inherited” from the pre-revolutionary period. The expectation that classes in general, including these three, would lose importance as socialist societies advanced toward communism proved unfounded. Instead, social differentiation persisted and grew more complex, prompting scholars to seek theoretical frameworks and operationalizations of main concepts that would adequately reflect the realities of the time. It is in this context that the Warsaw School of studying class and stratification originated. After the democratic revolutions of 1989, the class structures of countries in Central and Eastern Europe changed again, as societies adjusted to the processes of economic privatization and labor market competition.

Some general observations are warranted here. The class structure formed under socialism created class interests typical for that period. Such interests were rooted in the relation of each class toward the party-state apparatus, particularly the government. Classes that learned, during the socialist period, to defend their interests through overt or “hidden” class struggle did not readily abandon after 1989 what they had gained. This was evidenced by the effectiveness with which state factory workers used strikes as a weapon in conflicts with democratically elected governments. Even farmers and small commodity producers placed demands on government with respect to issues which, according to neoliberal logic, should increasingly have been left to market mechanisms to resolve. In the 1990s, then, the class structure of post-communist societies was a hybrid one, shaped both by the legacy of the past political/economic order and by the requisites of and opportunities afforded by emerging capitalism.

Corruption and a shadow economy exist, to varying degrees, in all socioeconomic systems. In Central and Eastern Europe, they are characteristic of both communist and post-communist systems, especially in periods of crisis. In the years following 1989, these phenomena were, to a large extent, legacies of the one-party regime. However, they took on a life of their own as democracies consolidated and the market economy developed. In all analyses of the transition period, emerging classes and their relationship with the state

and political elites should receive particular attention. The class of large-scale capitalists, their degree of autonomy from the state, and the extent of their integration with old and new political elites should be of special interest.

When we analyze the essential dimensions of social stratification, such as formal education, occupational status, and earnings, we find out that class differences are considerable. If we consider the vertical dimension of social stratification, it clearly shows that social classes cannot be reduced to a simple hierarchical pattern. The relations between social classes are complex and change over time. We have presented several class schemas developed on a shared theoretical base that correspond to, and capture, the main features of social structure under given regimes: (a) the communist system, (b) the post-communist transformation period, and (c) the system after 2008.

Empirical applications of these schemas show that both before and after 1989, class was not only conceptually but also empirically distinct from social stratification. For all analyzed time points between 1988 and 2013, social class cannot be consistently ordered along all three status components—formal education, occupational status, and income. For example, in 2013 the class of entrepreneurs is at the top of the economic (income) dimension but ranks lower than managers and experts in the educational dimension, as well as on the occupational scale; experts rank highest on formal education, followed by managers, but score much lower on income. Such shifts in rank support the argument that classes are discrete categories rather than categories consistently arranged along a multidimensional stratification continuum.

One of the most important debates arising from the post-communist transition concerns which occupational categories have benefited most from the market reforms. According to Market Transition Theory (Nee 1989, 2001), as market institutions consolidate during transition, returns to education, skill, and organizational assets increase. One expected result is a growing income gap dividing the classes of managers and professionals from all other classes. If professionals have not benefited from the economic reform in its early stage, one may expect some delayed effect in their financial returns that should come as the market consolidates. Owners, too, should benefit from market consolidation. As property increasingly becomes a main source of capital (Nee 1989), markets would provide powerful incentives to small entrepreneurs, whose relative success is based on the ability to make long-term investment decisions, cost-benefit calculations, and risk-taking. Changes from state socialist distribution to market allocation increase demand for entrepreneurial skills, and that should also benefit owners (Nee 1989, 674). Empirical results for Poland from

the 1990s document increasing returns to professional expertise and organizational skills, accompanied by the growing prosperity of managers and professionals relative to incomes enjoyed by owners (Domański 1999).

The widening gap between the winners of the transformation—primarily entrepreneurs, managers, and experts—and the relatively unsuccessful social classes of manual workers and farmers represents a fundamental fissure in society. It manifests itself through insufficient adaptation to the changing conditions of the developing capitalist economy and to the democratization of the political system (Kolankiewicz 1996; Evans and Mills 1999).

The years since 1989 have seen a unique series of processes of historical importance for the Polish society. One was the transformation “proper,” initiated with the systemic breakthrough following the end of communism, which—in brief—meant that the state and the economy would operate according to different rules. Another was the replacement of administrative and ruling elites as well as managerial groups in strategic governmental institutions that accompanied the political and economic transformations. Poland’s accession to the European Union in 2004, preceded by a few years of preparations and the inclusion of Poland into the network of global financial and economic relations arising from the new geopolitical situation and the spread of new communication technologies, had far-ranging consequences. Many significant works were written in an attempt to answer the question: What kind of Poland do we actually have? Is it one Poland, diversified in many dimensions, or subdivided into relatively dynamic classes and segments of the social structure (growing further and further apart)? Or perhaps the multidimensional conditions forming life opportunities have given rise to two Polands? Perhaps we should even speak of a “multi-Poland.”¹⁵

¹⁵ The aforementioned problems represent the main fabric of many interesting publications. Even the titles of some works direct readers’ attention to the consequences of the system transformation. See, for instance, *Jedna Polska? Dawne i nowe różnicowania społeczne* (One Poland? Old and New Social Differentiations) (Kojder 2007); *Polska. Ale jaka?* (Poland: But What Kind of Poland?) (Jarosz 2005b); *Polska jedna czy wiele?* (Poland: One or Many?) (Domański, Śpiewak, and Rychard 2006). Other noteworthy publications on the topic feature less emphatic titles, such as *Wymiary życia społecznego* (Dimensions of Social Life) (Marody 2002). An important contribution to what can be called the *summa sociologica* of the Polish transformation is made by works from the most recent conventions of the Polish Sociological Society (PTS) in Poznań (2004), Zielona Góra (2007), Kraków (2010), Szczecin (2013), and Gdańsk (2016).

PART TWO

Mobility and Attainment

CHAPTER THREE

Social Mobility and Systemic Changes in Class Structure: Analyzing Inflow-Outflow Tables with Different Origin and Destination Categories

Irina Tomescu-Dubrow and Kazimierz M. Słomczyński

The aim of this chapter is to analyze the patterns of intra-generational mobility in the aftermath of the 1989 systemic transformation in Poland, spanning the 15-year-period between the fall of “real socialism” and Poland joining the European Union. Our assumption is that the class structure of a socialist economy differed in a significant way from the class structure of nascent capitalism. Within a single generation, social mobility developed under unique conditions—people moved between social positions specific to two different socioeconomic systems. This is in contrast with typical situations where social mobility occurs within the framework of a single socioeconomic system, and therefore within a relatively stable class structure. In these typical instances, the process is analyzed with the help of symmetrical tables (matrices) of mobility, which have the same “initial” and “destination” categories. Our analysis takes into account the different social classes from which individuals originate (positions typical for late socialism) and the classes they enter later (typical for nascent capitalism). Such an analysis demands a new approach to the presentation of the flow of persons between social categories—in this case, of social classes.

In Chapter 2, the proposed conceptualization of the socialist social structure is based on the assumption that the control of economic resources by the communist party and the state apparatus diminishes the importance of ownership of the means of production—the criterion traditionally used to

divide society along class lines.¹ However, socialist society had well-defined structural characteristics, such as the *nomenklatura* system, which allowed for command-and-distribution control of economic resources, or the core-industry working class, initially merely a symbol of industrialization and later an important political force.

Beginning in 1989, changes to the social structure manifested themselves not only through the transformation of its “old” elements but also in the creation of “new” ones, mostly as a result of the processes of democratization and the introduction of the rules of a market economy. When examining the “old” elements of class structure, we must remember the vast scope of changes that took place after the fall of socialism. For example, even though the peasant class retains the same makeup when we use the criterion of land ownership, it becomes a very different class as a result of its connection to the free market of farming produce. The newly formed classes comprise company owners who hire a work force, and the “captains of capitalism,” namely managers in the free market. In this chapter, we are interested in the flow of persons from socialist classes to capitalist classes, referring the reader to Chapter 2 on the reproduction of the class structure of these two socioeconomic systems.

Studies of the flow of persons can be done in a variety of ways. Here we rely on a method based on the assumption of rational choice. Individuals make a cost-benefit analysis of a potential change in class situation, including its apparent stability. In times of crisis, nearly everyone must make similar calculations, as the entire class structure is changing, and, consequently, so is everyone’s position within it. We will sketch out a model of such a calculation against the backdrop of fundamental changes in the class structure of a post-communist society.

Generally, achievements of Polish sociology in the field of social mobility are realized within the existing paradigm of table analysis with the same entry and destination categories.² However, within the existing paradigm, it would

¹ Włodzimierz Wesołowski (1964) was among the first to advance a hypothesis on the disappearance of the criterion of the ownership of the means of production in socialism. An early overview of theoretical approaches used in Polish sociology in terms of social class conceptualization can be found in the work of Wesołowski and Słomczyński (1977), where the argument about the disappearance of the importance of the ownership of the means of production is restated and explained in depth.

² The work of Domański (1986, 1996, 2004a); Mach, Mayer, and Pohoski (1994); Pohoski and Mach (1986); Zagórski (1978); and Mach (2004) is especially noteworthy. The problem of the stability of the class structure (or the socio-profes-

be hard to answer the question of what happened to the *nomenklatura* as a social class, or what became of the core-industry working classes.³ While this chapter addresses such questions in the context of changes to the entire class structure, our main purpose here is to present and discuss methodological issues, based on specific empirical data.

Data and Variables

This chapter relies on the 1988–2003 waves of the Polish Panel Survey POLPAN, described in Chapter 2. In terms of sample, we use that which covers the adult population interviewed in 1987/1988, 1993, 1998, and 2003. Since we are interested in social mobility between classes of the two types of systems, communist and post-communist, we concentrated on persons who were working in 1988 and remained employed in 2003. The main variables are class membership in both time points, measured via respondents' occupation in respective POLPAN waves, and demographic characteristics: gender and age. In some of our explorations, we also take into account education, as measured by the number of completed years of study.

General Theoretical Approach

In our proposed model of occupational mobility, we assume that the individual expects to realize certain gains when starting a new job—including gains that will result in a change of class position. We can assume that these

sional structure) is also covered in analyses of intergenerational mobility; see also the works of Sarapata (1965), Nowak (1966), Janicka (1976), Sawiński and Domański (1986), Słomczyński (1989), and many others. See the work of Krauze and Słomczyński (1986) for some of the attributes of square matrices of the flow of persons between shared entry and destination categories.

³ This is not to say that the fate of the *nomenklatura* or the core-industry working class in the post-communist period has not been discussed in Polish sociology. A justification of class criteria in relation to the real socialist system can be found in Kohn and Słomczyński's book (1990); see also Matejko (1974), Szczepański (1978), and Wesołowski (1979). Although these authors do not mention the term *nomenklatura*, they use the concept of the political class that controlled the means of production and services.

gains constitute the goods and values that the individuals may expect as “rewards” for the effort connected with performing their jobs. Generally speaking, we can assume the existence of the following relationship:

$$U_k = F(V_k)$$

where U_k stands for the expected gains (utility) from the performed job k ; V_k is the pool of goods and values that the individual expects to gain by performing or starting the job; and $k = 1, \dots, m$ is the ordinal number attributed to this job. To simplify: the individual, having examined available offers on the job market, selects those that promise to maximize what he or she believes to be the gain within a short time.⁴

Persons who seek to maximize the gains from performing their jobs leave their positions for other positions when they can expect greater gains as a result. Taking this into account, we can suggest a model of individual behavior described as:

$$D_i = B_1 V_i + B_2 X_i + e_i$$

for N people, $i = 1, \dots, N$. D_i refers to the anticipated gains differential for switching jobs; V_i stands for the expected gains from the new position; X_i ($X_i^A, \dots, X_i^H$) is the vector of certain variables characterizing the individual; B_1 is the weight with the variable V ; B_2 ($B_{A_i}, \dots, B_{H_i}$) is the weight vector with variables X ; and finally, e_i is the error resulting from the impact of other variables.

The individual decides to switch jobs if $D_i > 0$. Despite D_i being an unobserved variable, we have a complete record of the positions the individual has held at different periods of time. We can therefore introduce a binary variable that takes on the value of 1 if the individual leaves one job and begins another in time t , and 0 when the change does not happen. The likelihood that during the observed moment t , i.e., the measurement moment, the individual occupied a position k , while during the previously observed moment, i.e., the pre-

⁴ In our model, the expected utility may also refer to the lack of employment. For the sake of simplicity, we treat the lack of employment as a specific type of “work station” that the individual can consider as a potential option. Omitting all potential limitations, a person currently unemployed may later enter one of the social classes. Models of unemployment prediction, based on the same data, are presented in Tomescu-Dubrow (2007).

vious measurement moment $t-1$, it occupied position j , can be expressed as the conditional relation:

$$P(D_{it} > 0 | V_{i(t-1)}, X_{i(t-1)}) = F(B_1 V_{i(t-1)} + B_2 X_{i(t-1)})$$

where F is the logistical distributive function.

The final estimated function is:

$$\log Y_{i(t)} = \text{constant} + B_1 V_i + B_A X_{i(t-1)}^A + \dots + B_H X_{i(t-1)}^H$$

for $i = 1, \dots, N$ people, whose characteristics are measured over time t and $t-1$ and where $Y = [w/(1-w)]$ is defined as the ratio of the probabilities.

We used individual data from observation time $t-1$ to time t in order to avoid confusing cause with consequence. For persons who were part of the sample between 1988 and 2003, information was available for all possible situations in which they could transition from one social class to another.

Coefficients of Transition from Class to Class

When we consider a change of the system, we must realize that even those individuals who are working in the same building manning the same machine have changed their social position, as the entire social class system has changed. Therefore j and k identify positions in different systems, and in principle, j cannot equal k . Thus, except in the event of a temporary or permanent exit from the employment market, everyone transitions from j to k .

The coefficients of transition from j to k , r_{jk} , are defined in the following way:

$$r_{jk}(t) = \lim_{\Delta t} \frac{\Pr(T_{jk} \leq t + \Delta t | T_{jk} \geq t)}{\Delta t} = \frac{f_{jk}}{1 - F_{jk}(t)} = \frac{f_{jk}(t)}{S_{jk}(t)}$$

where t stands for time; T is the period in which the potential transition from j to k takes place; $f_{jk}(t)$ is the density function; $F_{jk}(t)$ is the cumulative distribution (the probability that the event will happen before or after time t); and $S_{jk}(t) = 1 - F_{jk}(t)$ expresses the probability that there will be no transition from j to k in the given period of time.

Values $f_{jk}(t)$ and $S_{jk}(t)$ are given as proportions, so they are non-negative values. Consequently, $r_{jk}(t)$ is a non-negative number, assuming values from 0 to ∞ . This variable is, however, not interpreted in the same way as in normal linear regression. It is a hazard function interpreted as the risk of transition from position j to position k , where the risk refers to the conditional probability that the transition from position j to position k happens at time t to the probability that it does not happen.

Modeling of Alternative Event History

We use alternative event history modeling (Box-Steffensmeier and Bradford 2006) to present mobility between social classes. We assume that working-age persons had an opportunity to find their place in the new class structure. Toward the end of the 14-year period between 1989 and 2003, a given person either transitioned from a specific class to another specific class (event = 1) or did not (event = 0). Accordingly, social mobility should be imagined in the following way: at the outset, the individual finds themselves in a concrete social class and is confronted with a range of new classes to which they can transition at different points in time. At the end of the analyzed processes, the important considerations are the classes to which the persons transitioned, and those to which they did not.

Table 3.1 presents an example of the mobility of three persons. In the first case, in 1988 the person was part of the *nomenklatura*, five years later worked as an expert (professional), then 10 years later became a manager, and finally, at the end of the analyzed period (2003), became an employer-entrepreneur. In 1993, 1998, and 2003 the transition is marked as 1. In 2003, the classes to which this individual did not transition were noted as 0: supervisors, the self-employed, technicians and office employees, skilled workers, unskilled workers, and farmers.

The next two cases concern persons transitioning from the peasantry (a position in 1988). The case with Id = 12 is simple: the person, a 36-year-old man became an unskilled worker (event = 1) in 1993 and did not change his position later (in 1998 and 2003). This means that in 2003 all classes, with the exception of unskilled workers, are listed as alternatives (event = 0).

The last case (Id = 270) is interesting inasmuch as at the beginning of the transformation, a transition from the peasant class to the farmer class is noted, according to the assumption that when radical systemic change

Table 3.1. Data format for the analysis of alternative events

Id	Calendar years	Passage of time in years	Transition (event)	From class	To class
Example 1: Man, 45 years old (in 2003)					
1	1988	0	–	<i>Nomenklatura</i>	–
1	1993	5	1	<i>Nomenklatura</i>	Experts
1	1998	10	1	<i>Nomenklatura</i>	Managers
1	2003	15	1	<i>Nomenklatura</i>	Entrepreneurs
1	2003	15	0	<i>Nomenklatura</i>	Directors
1	2003	15	0	<i>Nomenklatura</i>	Self-employed workers
1	2003	15	0	<i>Nomenklatura</i>	Technicians and office employees
1	2003	15	0	<i>Nomenklatura</i>	Skilled workers
1	2003	15	0	<i>Nomenklatura</i>	Unskilled workers
1	2003	15	0	<i>Nomenklatura</i>	Farmers
Example 2: Man, 36 years old (in 2003)					
12	1988	0	–	Peasantry	–
12	1993	5	1	Peasantry	Unskilled workers
12	1998	10	1	Peasantry	Unskilled workers
12	2003	15	1	Peasantry	Unskilled workers
12	2003	15	0	Peasantry	Entrepreneurs
12	2003	15	0	Peasantry	Managers
12	2003	15	0	Peasantry	Experts (professionals)
12	2003	15	0	Peasantry	Supervisors
12	2003	15	0	Peasantry	Self-employed
12	2003	15	0	Peasantry	Technicians and office employees
12	2003	15	0	Peasantry	Skilled workers
12	2003	15	0	Peasantry	Farmers

Id	Calendar years	Passage of time in years	Transition (event)	From class	To class
Example 3: Woman, 43 years old (in 2003)					
270	1988	0	–	Peasantry	–
270	1993	5	1	Peasantry	Farmers
270	1998	10	1	Peasantry	Unskilled workers
270	2003	15	1	Peasantry	Skilled workers
270	2003	15	0	Peasantry	Entrepreneurs
270	2003	15	0	Peasantry	Managers
270	2003	15	0	Peasantry	Experts (professionals)
270	2003	15	0	Peasantry	Supervisors
270	2003	15	0	Peasantry	Self-employed
270	2003	15	0	Peasantry	Technicians and office employees

happens, everyone changes his or her class affiliation. In this case, a woman changed her position first to farming, then to manual worker: initially unskilled and finally skilled. Because of these movements, alternative social classes were employer-entrepreneurs, managers, experts (professionals), supervisors, the self-employed, and technicians and office workers.

Results

We begin with simple analyses in which the coefficients of transition from category j to k , r_{jk} , are estimated for two time points: 1989 to 2003. The results in Table 3.2 are presented in two versions. In the first version, the coefficients stand for the ratio of (a) the probability that a person from a given “initial” class (in 1988) will transition into any of the possible “destination” classes (in 2003) to (b) the analogous probability for all other “initial” classes taken together. In the second version, the coefficients stand for the ratio of (a) the probability of transition from a given “initial” class to any of the possible “destination” classes to (b) the analogous probability for the reference “initial”

Table 3.2. Coefficients of transition τ_{jk} from social class in late socialism to social class in nascent capitalism, with z-test (z).

Social classes of late socialism (1988)	Social classes in nascent capitalism (2003)								
	Entrepre- neurs	Managers	Experts	Supervi- sors	Self-em- ployed	Technicians and office employees	Skilled workers	Unskilled workers	Farmers
Coefficients rjk estimated independently for each class in 1988									
<i>Nomenklatura</i>	2.96* (2.18)	4.73** (4.39)	1.20 (0.30)	0.37 (-1.48)	1.36 (0.54)	1.00 (0.16)	- (a)	- (a)	0.38 (-0.99)
Office workers	0.80 (-0.63)	4.34** (4.05)	21.37** (5.20)	6.44** (6.95)	0.58+ (-1.75)	3.58** (5.94)	0.09** (-7.33)	0.16** (-4.11)	0.08** (-5.93)
Core-industry working class	0.31* (-1.95)	0.03** (-3.43)	0.03** (-3.57)	0.51* (-2.39)	0.66 (-1.21)	0.42** (-3.05)	11.34** (12.24)	1.90* (2.18)	0.44* (-2.52)
Peripheral working class	0.24 (-1.45)	- (a)	- (a)	- (a)	0.71 (-0.47)	1.27 (0.62)	1.83** (2.49)	10.47** (8.81)	0.18+ (-1.76)
Peasantry	0.30+ (-1.91)	0.18+ (-1.73)	- (a)	- (a)	0.62 (-1.00)	0.09** (-4.31)	0.12** (-4.76)	0.48 (-1.62)	17.95** (12.67)
Owners of small private enterprises (self-employed)	8.77** (7.03)	0.36 (-1.03)	- (a)	- (a)	7.49** (6.85)	0.17** (-2.56)	0.39 (-1.50)	0.86 (-0.27)	0.34 (-1.40)
Coefficients rjk estimated for all classes in 1988 simultaneously									
<i>Nomenklatura</i>	3.15* (2.13)	2.39** (2.49)	0.57 (-0.91)	0.21* (-2.38)	1.89 (1.04)	0.65 (-0.90)	- (a)	- (a)	2.72 (0.96)
Office workers	- (b)	- (b)	- (b)	- (b)	- (b)	- (b)	- (b)	- (b)	- (b)
Core-industry working class	0.42 (-1.35)	0.02** (-3.70)	0.02** (-4.03)	0.31** (-4.22)	1.01 (0.030)	0.30** (-4.26)	17.76** (9.52)	6.19** (3.85)	3.61** (2.59)
Peripheral working class	0.28 (-1.25)	- (a)	- (a)	- (a)	1.01 (0.02)	0.76 (-0.73)	9.83** (6.17)	27.69** (7.08)	1.30 (0.25)
Peasantry	0.39 (-1.44)	0.12* (-2.14)	- (a)	- (a)	0.93 (-0.14)	0.06** (-4.91)	0.81 (-0.41)	2.07 (1.21)	34.60** (8.96)
Owners of small private enterprises (self-employed)	6.97** (5.45)	0.22 (-1.55)	- (a)	- (a)	7.72** (5.85)	0.11** (-3.22)	2.23 (1.16)	3.44+ (1.81)	2.48 (1.06)

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$; (a) Not estimated because of the small number of cases in the cell; (b) Reference category
 Number of observations = 4,323; Number of groupings = 393

class, that of office workers. The coefficients were obtained using logit polynomial regression models in STATA.

The first part of the table indicates the following statistically significant high rates of transition from the social classes of late socialism:

Nomenklatura → Managers, Employers-entrepreneurs

Office workers → Experts, Supervisors, Managers, and Technicians and office employees

Core-industry working class → Skilled workers, Unskilled workers

Peripheral working class → Unskilled workers, Skilled workers

Peasantry → Farmers

Owners of small enterprise (self-employed) → Employers-entrepreneurs, Self-employed

In all these cases, coefficients r_{jk} range from 1.83 to 21.27, with z-test values indicating significance level at $p < 0.05$ or $p < 0.01$. In the best case, we can assume that office workers under late socialism have over 20 times more chance of becoming experts 15 years later. Moreover, we can confidently reject the null hypothesis that there is no difference between office workers and other social classes in achieving the status of experts: this was so in more than 99 percent of independent random samples of the same size.

It is important to recognize that members of certain social classes of late socialism have much lower chances of changing their class during the social transformation than do all other “initial” social classes taken together. In the first part of Table 3.2, this is indicated by coefficients r_{jk} smaller than 1. For example, members of the core-industry working class before 1989 have significantly lower chances of becoming employer-entrepreneurs, managers, experts, technicians, and office workers than members of other social classes of the same initial time. It is important to note that a number of transitions are noted as (a), since there were not enough cases to provide reliable estimates. However, this situation means that there was practically no movement from the initial class to a given destination class. Thus, for example, there was practically no movement from the *nomenklatura* to skilled and unskilled workers. And there was practically no movement from the peripheral working class, peasantry, and owners of small private enterprises to destination classes of experts and supervisors.

In Part 2 of Table 3.2, the coefficients r_{jk} for each class of late socialism are computed as the chances of changing class position relative to comparable chances of office workers. In essence, this part reveals a pattern similar to that of Part 1 of the same table, with some notable exceptions. For example, the

chances of members of the core-industry working class to become farmers are smaller when compared with that of members of all other social classes together ($r_{jk} = 0.44$) but much higher when compared with that of office workers ($r_{jk} = 3.61$).

Generally speaking, Table 3.2 confirms that several years after the regime change, the social structure in Poland was partly reproduced by intra-generational mobility, especially among the disadvantaged. The working class (either in the core industry or in its peripheries) stays as manual workers (skilled and unskilled); members of peasantry become farmers, which reflects only some alteration in the way the business is conducted, but not the nature of employment status or types of work performed. However, intra-generational mobility also brings substantially important and statistically significant changes. The main social class that ceased to exist as a result of the regime transformation is the socialist *nomenklatura*, which to a great extent transferred into classes of employer-entrepreneurs and managers. Some owners of small enterprises became employer-entrepreneurs. Some office workers transferred to managerial, expert, and supervisor positions.

As shown in Chapter 2, managers, experts, and employer-entrepreneurs occupy the most privileged position. Workers and farmers are in the least privileged position, at the very bottom of the stratification ladder. In further analyses, we label the most privileged classes with the letter *P*, and the disadvantaged classes with the letter *D*, assuming that *P* and *D* are binary variables. Using these variables, we apply Cox regression, with classes from the period of late socialism and control variables as independent variables (Table 3.3).

If we consider achieving a privileged position in the social structure after 1989 without control variables, only the effect of the self-employed in 1988 did not differ significantly from the effect of office workers, who make up the reference category. In the case of the *nomenklatura*, the effect is positive, while for the core and peripheral working class, the effect is negative. After controlling for other variables, with the exception of the self-employed, the effects of the social classes of late socialism have no significant effect on achieving neither privileged nor disadvantage social classes of nascent capitalism. A change of coefficients from significant to insignificant is mostly caused by the education effect; the positive impact of this variable is indeed large.

Introducing education into the equation negates the effect of the *nomenklatura*. This indicates the fact that the success of this social class was due not only to political factors but also to human capital. In Poland the *nomenklatura* was, on average, well-educated—at least formally.

**Table 3.3. Cox regression for the privileged and the underprivileged
in nascent capitalism**

Independent variables	Privileged classes		Underprivileged classes	
	Coefficient	z-test	Coefficient	z-test
A. Without control variables				
<i>Nomenklatura</i>	1.60*	2.39	1.01	0.01
Office workers (reference category)	0	0	0	0
Core-industry working class	0.08**	−5.35	12.08**	10.48
Peripheral working class	0.40**	−3.29	11.40**	9.31
Peasantry	0.10**	−4.31	14.20**	11.26
Self-employed	1.08	0.33	2.76*	2.09
Statistical adjustment	Wald χ^2 (df = 5) = 65.90 Log pseudo-likelihood = −2203.23		Wald χ^2 (df = 5) = 151.21 Log pseudo-likelihood = −3803.9	
B. With control variables				
<i>Nomenklatura</i>	1.31	1.57	1.04	0.04
Office workers (reference category)	0	0	0	0
Core-industry working class	0.47	−1.49	5.78**	5.71
Peripheral working class	0.30	−1.17	5.48**	5.39
Peasantry	0.41+	−1.87	7.12**	6.51
Self-employed	1.77*	2.12	1.98	1.45
Gender (male = 1, female = 0)	1.16	1.22	1.13	1.53
Age (years)	1.01	0.72	0.97	0.58
Education (years of schooling)	1.40**	9.11	0.86**	−4.15
Statistical adjustment	Wald χ^2 (df = 8) = 192.64 Log pseudo-likelihood = −2125.59		Wald χ^2 (df = 8) = 245.85 Log pseudo-likelihood = −3789.98	

+ $p < 0.10$ * $p < 0.05$ ** $p < 0.01$

Number of observations = 4,323

Number of groupings = 393

Concluding Remark

While we have focused on substantive issues of the peoples' transitioning from socialist classes to classes typical of the post-communist period, this chapter contains a strong methodological aspect. In particular, we have analyzed the transition from one group of classes (socialist social classes) to another group of classes (post-communist classes) using event history analysis for "alternative events." We have applied the main assumptions of this type of analysis to fit the needs of an analysis of mobility between classes with different origin and destination categories, departing thus from the tradition of comparing mobility tables with identical categories (Hout 1983).

CHAPTER FOUR

Social Mobility in Education and Occupation, 1982–2006

Henryk Domański, Bogdan W. Mach, and Dariusz Przybysz

This chapter on social mobility examines social “openness.” For skilled members of the working class, high openness can mean easy access to higher managerial positions, regardless of social origin. Low openness refers to the inheritance of the father’s position and barriers of recruitment to privileged categories that tend to be taken over by the children of medical doctors or lawyers.

This interpretation is complicated by the distinction between absolute and relative mobility (Featherman, Jones, and Hauser 1975; Hauser 1978). In interpreting absolute mobility, sociologists point out that its rate results primarily from a universal trend toward shrinking of certain occupational categories that represent traditional areas of the economy (farmers and manual workers) and an increasing share of non-manual workers, particularly specialists in higher positions. These structural changes tend to “enforce” some mobility from the lower to the higher strata, which does not have to produce a greater equality of chances, identified with relative mobility. One can easily imagine that, in spite of a big inflow to professionals from the working class or peasants, the relative inheritance of these (usually “privileged”) positions remains unchanged when compared to the inflow rates.¹

¹ Often, a privileged category facing a significant inflow from the lower echelons of social hierarchy reacts by closing its ranks. Such a tendency was visible in Poland after World War II in some segments of the old Polish intelligentsia.

Absolute social mobility is measured by percentages of individuals moving from categories of origin to categories of destination, while relative mobility refers to the strength of association between these categories. The size of relative mobility used to be captured in terms of “odds ratio,” which indicates how much every two individuals from different categories of social origin differ with respect to their chances of being located in one, rather than the other, of each pair of categories of destination. Since relative mobility is analyzed in terms of odds ratios, it does not depend on distributions of social origin and destination categories, unlike absolute mobility rates, which are affected by them. In estimating relative mobility, we need to compare only the chances of different social categories (for absolute mobility, such comparisons are not required). This makes it possible to establish to what extent the observed rate of social mobility differs from a hypothetical state of equality of chances, which is “intergroup” in its essence—equality of chances exists when the chances for achieving a given social position are the same for any pair of categories of social origin.

Concerning the sociological meaning of absolute and relative social mobility, it can be said that the latter refers to social norms “governing” the processes of preserving social positions or moving from one position to another. These norms represent relationships of social, economic, cultural, and political “power” between classes, occupations, and other categories and manifest themselves in the differentiation of social resources that facilitate (or hinder) mobility (or stability) for members of these groups (see Erikson and Goldthorpe 1992; Breen 2004; Domański and Przybysz 2007; Domański and Mach 2008).²

In most analyses on social mobility, the notion of “openness” is reserved for relative mobility; we also use it in this sense in this chapter, alternately with the notion of “fluidity” (Erikson and Goldthorpe 1992). Our analysis focuses on changes in the “openness” of Polish society over the last 25 years, although we also pay some attention to changes in absolute mobility.

² Relative mobility can be regarded as a manifestation of chances (diversified with respect to social origin) to access resources helping to overcome barriers of mobility, or helping to retain some lucrative positions. In other words, relative mobility reflects diversified benefits (or the lack of them) related to being born in one social category rather than another. There is no doubt that, in some of the cases, what lies behind the inequality of chances, or the lack of it, is differences in abilities, motivations, and preferences, rather than differences in control over resources used to overcome limitations that individuals face in carrying out their life strategies.

PRIOR EMPIRICAL RESEARCH

The question of changes over time is a frequently studied aspect of social mobility. There is disagreement over whether social fluidity increases, declines, or remains constant. Even results reported for the same countries are ambiguous, in that some of them indicate significant change while others show trendless fluctuations or no change at all (e.g., Hout 1988; Luijkx and Ganzeboom 1989; Jonsson and Mills 1993; Jones, Kojima, and Marks 1994).

The most recent findings come from a comparative analysis of mobility patterns from 11 countries covering the last 30 years of the 20th century (Breen 2004). Concerning absolute mobility, a systematic comparison of its degree in the 1970s, 1980s, and 1990s showed that percentages of mobile men and women became more and more similar across countries during that time. Based on these results, authors concluded that absolute mobility tends to “converge” among countries, which results mainly from an ongoing convergence of occupational structure (Breen and Luijkx 2004).

Fluidity patterns were analyzed by means of log-linear models. Relative mobility appeared to differ significantly across these nations, with Israel being the most fluid society, followed by Poland and Sweden, while Ireland and Germany were the most closed societies. Regarding changes over time, there were no systematic tendencies. Actually, they ran in opposite directions. Relative mobility systematically increased in France and the Netherlands, while in Hungary it systematically decreased; cyclical fluctuations appeared in other societies. Interpreting these results, Breen and Luijkx (2004) emphasized a lack of unidirectional changes in relative mobility, which contradicted earlier theoretical predictions about openness rising along with democratization and economic growth (Lipset 1960).

An ongoing increase in absolute mobility rates was reported in many research projects. We must note, however, that our empirical knowledge comes mostly from a limited number of countries, the highly developed economies and democratic systems that lead to an increase in social mobility. We do not know whether the same tendencies occur in less politically stable Latin American, African, and Asian societies. Findings on changes in relative mobility are even more debatable. Generally, the patterns of temporal changes did not evolve toward a greater (or smaller) social fluidity. Moreover, the findings are highly dependent on measurement models.

Let us summarize the situation for Poland. Information we have on changes over time is based on data coming from national surveys, carried

out on random samples, and administered consistently. With respect to absolute mobility, the evidence for 1972–1994 points to a gradual increase in intergenerational flows, more among women than among men. Parameters of the linear social fluidity model for women also suggest some trend toward an increase of relative mobility. At the same time the relative mobility among men showed no significant increase or decrease. Overall, there was no clear evidence of change over time in the openness of social structure (Mach 2004).³

A lack of linear changes is also evident when examining the most recent decades. Adding further observations for the 1990s and the decade 2000–2009 did not reveal a consistent trend of increase or decrease in fluidity patterns. The direction of this change has itself varied (Domański and Przybysz 2007).

ANALYTICAL SCHEME AND RESEARCH STRATEGY

Although we do not overlook absolute mobility, our chapter focuses on relative mobility—that is, on the openness of social structure. In doing so, we attempt to determine temporal changes in the strength of constituent linkages of social fluidity, which revolve around the impact of social origin on destination. From the perspective of the individual's life cycle, one may look at the social stratification as resulting from: (i) the effect of social origin on educational achievement, (ii) the effect of educational level on socio-occupational position, (iii) the direct effect of social origin on socio-occupational position regardless of the individual's education, and (iv) the indirect effect of social origin on socio-occupational position through the level of education as a mediating factor. Using this scheme, we will address the question of how the impact of social origin on social position has developed. Such decomposition of social fluidity would be expected to shed more light on mechanisms working behind the trajectory of social openness. To this effect we will use aggregated data collected in five surveys conducted on national samples in Poland between 1982 and 2006.

³ Using the Polish data from 1972 to 1994, Breen and Luijkx (2004, 388) found an increase of social openness among men as well. However, they included in their analyses a very large data set from 1972 (containing over 30,000 cases). Since these data were not weighed relative to the data from the later surveys, this could well have biased their conclusions.

Our research strategy deliberately focuses on analyzing the change between consecutive points of time (defined by survey data) rather than the change defined by age cohorts, which provides a slightly different approach. Given the small size of the samples, we cannot employ both perspectives, although that would be the best solution. This will inevitably lead to a degree of uncertainty in our conclusions. However, the scope and pervasiveness of the social transformation occurring between 1982 and 2006 provides us with some justification for concentrating on the analysis of historical change. If it appears that the collapse of communism and a transition toward a democratic and market-oriented society did not prompt a change in the openness of key links of social fluidity, one could reasonably ask what other historical trajectories would be able to trigger such changes. Certainly, we cannot rule out the possibility that historical changes in social fluidity affected only some specific cohorts (or affected some of them in a particular way).⁴ If our “historical” analysis fails to detect significant tendencies in the links of social fluidity over the analyzed period of time, this should become a starting point for new research on cohort analysis. An obvious drawback of our approach is that it relies on comparisons between partly overlapping age cohorts from neighboring points of time.⁵ Bearing this limitation in mind, we do not think that the cohort analysis should be considered unquestionably better for grasping the dynamics of the openness of contemporary society than the approach focused on comparing historical time periods (Breen and Jonsson 2005).

THE ROLE OF SPECIFIC LINKAGES

A lack of unidirectional tendencies in social fluidity may mask some significant changes in its constituent factors. In line with the traditional status attainment model (Blau and Duncan 1967), it is useful to think of intergenerational mobility relationships as being composed of some pathways. In our

⁴ Survey data from Germany covering the life experience of the pre-World War II and post-World War II cohorts document such processes. A lesson should be drawn from such analysis for Poland as well (Müller and Pollack 2004).

⁵ Changes in 1982–2006 may be conflated with changes related to replacement of the age cohorts. Comparing mobility patterns captured by successive surveys, we are comparing populations that are not separate. Such overlaps weaken the power of statistical tests concerning changes over time. Given this limitation, our analysis will take into account not only the statistical significance of parameters on changes but also the values of these parameters, patterns of association, and so on.

analytical scheme we assume that social origin exerts a direct impact both on the educational level (origin-education, OE), and on the socio-occupational position (origin-destination, OD); the latter is also directly affected by educational level (education-destination, ED). In addition, the effect of social origin is transmitted by means of educational level stimulating socio-occupational attainment (linkage origin-education-destination, OED).

Empirical evidence from various countries—including Poland—indicates that the effect of social origin on socio-occupational attainment is strongly mediated by education and that this indirect link is more influential than the direct effect (Boudon 1974a and 1974b; Robinson and Garnier 1985; Goux and Maurin 1997; Domański 2002a). It needs to be established whether the direct and the indirect linkages strengthen each other or cancel out each other, respectively increasing (or decreasing) the degree of crystallization of social mobility barriers. For instance, a stable direct impact of social origin on socio-occupational position could be counterbalanced by some decline of its effect on education, as well as by a decline of association between education and socio-occupational position. Conversely, an increase in the strength of all three linkages would serve as a hypothetical example of increasing crystallization.

Our general hypothesis is that the degree of “openness” in Poland from 1982 to 2006 remained basically the same, although the system transformation after 1989 made the constituent factors of social openness susceptible to change. We expect that various links embedded in the process of intergenerational mobility (e.g., Origin-Destination OD, Education-Destination ED, Origin-Education-Destination OED) have changed, but in opposite directions. We formulate specific hypotheses in the next four sections based on relevant theoretical arguments.

SOCIAL ORIGIN—EDUCATION (OE)

For occupational mobility, a first causal link is the effect of social origin on educational attainment: children attend school, where they acquire knowledge, skills, and other assets that subsequently facilitate access to various positions, the most important being occupational outcomes. The role of social origin at this stage consists of the resources that mothers and fathers provide to their children, which facilitate (or hinder) access to consecutive levels of education.

The significance of this association is unanimously accepted. More debatable is whether the strength of the link between parental resources and

children's educational attainment changes over time. Contrary to the expectations that a steady increase in the level of education will result in a declining effect of social origin, research in this field amply documented that parental social class continues to affect educational attainment. Over much of the last century, educational inequalities remained broadly unchanged in the United States (Hout and Dohan 1996). Studies carried out in the United Kingdom for the 1980s and 1990s revealed a declining effect of social origin on educational selection (Jonsson and Mills 1993), but other findings for the same time indicate that this association did not change at all (Goldthorpe 1996; Marshall, Swift, and Roberts 1997). A lack of significant tendencies over time in the effect of the father's occupational position on the individual's education level was also reported for Israel (Shavit and Kraus 1990), Ireland (Whelan and Layte 2002), and the former Soviet Union. In the latter, the impact of social origin on the transition to secondary schools decreased, but this decrease was counterbalanced by a growing rigidity in access to tertiary education (Gerber and Hout 1995). Moreover, analyses conducted on data collected for post-communist Russia reported an increase in the effect of the father's occupation on both these transitions (Gerber 2002).

Other studies reveal opposite tendencies, pointing to a decline of educational inequality, for France (Vallet 2004), Germany (Jonsson 1996), Norway (Lindbekk 1998), Italy (Shavit and Westerbeek 1998), and—most unambiguously—for the Netherlands (Sieben, Huinink, and de Graaf 2001) and Sweden (Jonsson and Erikson 2000).

How did Poland fare? The policies of the communist state in the 1950s aimed to reduce disparities between social classes, including by fighting inequality in education. The communist rulers implemented special courses and set preferential conditions for college or university candidates who originated from the peasant or the working class. Despite these efforts, the effect of social origin on transitions to consecutive levels of education remained basically the same (Sawiński and Stasińska 1986).

The collapse of the communist system in 1989 created endogenous pressure toward a change of class inequality in educational choices. Analysis of 1982–2002 survey data demonstrated some increase in social inequality in the transition to secondary and post-secondary schools, including colleges and universities (Domański 2004). One may hypothesize that some increase in educational inequality was due to the rising market value of educational diplomas. The most privileged in terms of access to “better” education were higher managers and professionals, who could afford the rising cost

of schooling for their children, while the most disadvantaged were manual workers and peasants. However, this rise in educational inequality was only short-term and in later years was followed by a decline (Domański 2004). The reversal of the initial tendency could have resulted from the proliferation of colleges and universities, which opened educational channels to individuals originating from lower social positions.

Extending the period under observation back to the 1950s, and taking 2006 as the endpoint (see Chapter 5 in this volume) confirmed that Polish society did not experience a significant reduction in the effect of parental class on transitions to secondary and post-secondary education. The role of factors related to social origin was, approximately, on the same level in the 1950s and 1980s, and in 2006. One of the main aims of this chapter is to determine whether the social origin-education link (OE) tends to maintain, increase, or reduce the effect of parental class on occupational position.

EDUCATION—SOCIO-OCCUPATIONAL POSITION (ED)

A second pathway of mobility leads from one's level of education to his/her socio-occupational position. Under the general expectation that the role of ascription will decrease and the role of achievement will increase—as derived from modernization theory—the effect of education on occupational attainment constitutes the pivotal linkage. Its relevance results from the fact that jobs in the modern economy require knowledge, skills, and educational credentials. The strength of this relationship may vary depending on the linkages of education with the labor market. Rigid educational tracking and a marked horizontal differentiation in training—as in Germany or Austria—create institutional underpinnings that make this link stronger. Conversely, education is less important in countries that have a single track from education to the occupational system, like Ireland, the United Kingdom, or the United States (Shavit and Müller 2003).

The educational system in Poland has elements of tracking. After completing elementary school (or *gimnazjum*, i.e., middle school, after the 1999 reform), the graduate may enter vocational schools, general high schools, or technical high schools, which generally determines his/her further career. Hence Poland is among the countries with a strong relationship between educational level and socio-occupational position.

To state our expectations regarding the OE link in Poland, it is useful to review macro-level settings and changes in institutional conditions. The first

factor is a persistent growth in the general level of education.⁶ While educational expansion is associated with many advantages, including enhancement of people's general well-being and macroeconomic development, it also increases the "supply" of the educated, which, in turn, may diminish the market value of some educational levels. This could weaken the link between educational attainment and occupation.

A second factor in the changing institutional setting in Poland is less educational tracking. In the last 20 years, basic vocational schools have been consistently replaced by general high schools. In 1995–2007 the number of basic vocational schools decreased from 2,625 to 1,760, while the number of general high schools rose from 1,705 to 2,451 (*Rocznik Statystyczny* 2007, 341). At the same time, the number of basic-vocational-school graduates fell from 225,600 to 75,700, while the number of high-school graduates rose from 131,200 to 236,000 (*Rocznik Statystyczny* 2007, 353). The declining educational differentiation of this kind also suggests a weakening of the ED association.

DIRECT LINKAGE:

SOCIAL ORIGIN—SOCIO-OCCUPATIONAL POSITION (OD)

The next path involves the direct link between parental occupational status, traditionally measured through the father's occupation (Blau and Duncan 1967), to the offspring's occupational position. According to modernization theory, the net effect of social ascription should go down (Treiman 1970). This tendency received ample empirical support (Marks 2014), but there were also exceptions involving both particular countries and periods of time (Erikson and Goldthorpe 1992; Breen 2004; Breen and Jonsson 2005). In some countries the role of social origin in allocating individuals to occupational positions even increased (cf. Breen 2004).

In Poland, such a trend was reported in the early 1970s (Haller and Mach 1984). We are open to the possibility that Poland will continue to display a strong direct association between social origin and occupational attainment during the period of our analyses, 1982–2006.

⁶ From 1995 to 2005, the number of college or university graduates grew from 89,000 to 394,000 (*Rocznik statystyczny* 2007, 358).

INDIRECT LINK OF SOCIAL ORIGIN— SOCIO-OCCUPATIONAL POSITION, VIA EDUCATION

The argument behind the mediating role of education is that educational attainment carries over resources embedded in one's family background, and is not merely indicative of individual achievement (i.e., intellectual ability or motivation). It is generally accepted that education has both a "reproductive" role (Bourdieu 1986) and an "emancipating" one (Blau and Duncan 1967; Treiman 1970). Hence one could say that the mediating effect of education contributes to both the ascription and achievement parts of the status attainment process (Robinson and Garnier 1985; Goux and Maurin 1997; Domański 2002a).

In studies on intergenerational mobility, the intermediary role of education led to the hypothesis that educational expansion increases the size of the more educated categories, in which the net association between origin and destination is weaker. A significant contribution of this compositional effect to social fluidity was discovered in the United States, France, and Germany (Hout 1988; Müller and Pollack 2004; Vallet 2004).

In Poland, researchers found no significant changes in social fluidity over recent decades. Our hypothesis, therefore, is that despite a considerable rise in educational level in Poland, the composite effect did not occur, at least to a substantial extent.

Data

Our data come from national random samples of the adult population in Poland. The earliest data set comes from the survey Life Conditions and the Needs of Polish Society, 1982 (Beskid 1984), carried out on a sample of households, yielding 5,317 respondents. The next survey, Social Structure II (known as POLPAN 1988), was conducted in 1988 on a sample of 5,884 individuals (Słomczyński et al. 1989) and constitutes the first round of the Polish Panel Survey, POLPAN 1988–2013. To determine the trend for the early 1990s, we use the data from the 1992 and 1993 Polish General Social Survey, PGSS (Cichomski and Morawski 2002), conducted on samples of households. Since the PGSS samples were relatively small ($N = 1,647$ and $1,649$ cases), we merged them into one integrated data set. For the same reason, we com-

bined the data from the 1998 survey, “How Is the Middle Class Forming?” (Domański 1999), $N = 1,956$ individuals, with the 1999 survey, “How Are the Poles Living?” (Domański 1999), $N = 1,384$ people. Finally, the data for the decade 2000–2009 come from the European Social Survey (ESS), which is a cross-national, cross-sectional data set with individuals as the units of analysis. We used the 2004 and 2006 rounds for Poland ($N = 1,716$ and $1,721$ individuals, respectively). The Polish General Social Survey was conducted by the Institute of Social Studies at the University of Warsaw, while all other surveys were conducted by the Institute of Philosophy and Sociology of the Polish Academy of Sciences.

We conducted our analyses on data aggregated from these nine surveys. Since POLPAN 1988 covered adult Poles aged 21 to 65 years, for comparability purposes we include only respondents from this age bracket across all surveys.

VARIABLES

Social origin was measured by the father’s occupational category when the respondent was 14 years old. Because the Polish class structure changed quite a bit, both during socialism, and after 1989 (see Chapter 2 in this volume), we relied on a measure that is less nuanced in terms of specific occupational groups but that allows us to compare origin and destination categories at different time points. Specifically, we used the *Social Classification of Occupations* (Pohoski and Słomczyński 1978; see also Chapter 7 in this volume) to construct an aggregated schema that distinguishes: (i) senior managers and specialists, which we refer to as “intelligentsia,” (ii) other non-manual workers and small proprietors, (iii) skilled and unskilled manual workers, and (iv) farmers—both farm owners and farm laborers. The same fourfold coding was used to identify categories of destination. Respondents who were not in the work force at the time of the survey were coded according to their last job, with the exception of the 1982 study.

Education was operationalized in terms of four levels: (i) elementary, complete or incomplete, (ii) basic vocational or incomplete secondary, (iii) complete secondary, and (iv) post-secondary or tertiary. Although these categories are very broad, this seemed to be the only possible categorization, given that our analyses involved a four-way table (year of study / father’s occupation / respondent’s education / respondent’s occupation) with 486

entries, which had to contain a sufficient number of cases.⁷ We apply log-linear models to mobility tables for men and women.

Results

ABSOLUTE MOBILITY

Using the four category class schema, in Table 4.1 we report the proportion of intergenerationally mobile men and women (i.e., those whose destination categories differed from their fathers') as well as the indices of dissimilarity between categories of origin and destination at each point in time. For detailed mobility information, see Appendix A, Tables A1 and A2.

Table 4.1. Mobility percentages and dissimilarity indexes between socio-occupational categories of fathers and sons (daughters) in 1982–2006

Men					Women				
1982	1988	1992/ 1993	1998/ 1999	2004/ 2006	1982	1988	1992/ 1993	1998/ 1999	2004/ 2006
Mobility percentages									
52.5	52.1	54.9	53.8	51.6	53.7	58.8	62.0	63.3	66.7
Dissimilarity indexes									
26.5	22.3	20.0	25.4	17.4	29.9	29.6	35.4	38.1	37.3

The percentage of mobile women increased from 53.7 in 1982 to 66.7 in 2004/2006. For men, we observed an increase in 1982–1993, but later mobility declined. This implies that no unidirectional change occurred in the overall mobility rate (for both genders). The value of dissimilarity index indicates what percentage of respondents would have to change their occupational category to make the destination distribution identical to the dis-

⁷ This particularly concerns our occupational schema. For example, the category of other non-manual workers includes the latter together with small business owners. Another heterogeneous category is that consisting of skilled and unskilled manual workers.

tribution of origin. The higher its value, the more intense structural change took place. Results in Table 4.1 show that the value of dissimilarity index for women rose from 29.9 percent to 37.3 percent, which documents growing changes in occupational distributions of fathers and daughters since 1982. The rise suggests that the increase in total mobility for women might have been partially caused by intergenerational changes in social structure.

RELATIVE MOBILITY AND THE OPENNESS OF SOCIAL STRUCTURE: THREE-VARIABLE ANALYSES

Next we turn our attention to the study of social fluidity, identified with social openness. We fit three models concerning the effect of the father's occupational category on the respondent's educational level. Table 4.2 shows the results of fitting these models to the data—the goodness-of-fit tests (L^2 and BIC), associated with each of these models and also the indices of dissimilarity Δ .

Following the logic of log-linear modeling, we begin with the conditional independence model, which we name TO TE. T refers to the consecutive points of time when the surveys were carried out, while O and E stand for origin and education, respectively. The conditional independence model written in the form:

$$(1) \quad F_{ijk}^{TOE} = \tau \cdot \tau_i^T \cdot \tau_j^O \cdot \tau_k^E \cdot \tau_{ij}^{TO} \cdot \tau_{ik}^{TE}$$

serves only as a reference model for testing hypotheses on temporal changes in social fluidity. Assuming a lack of association between origin and destination, it only says that in 1982–2006 some change could occur in the distribution of the father's (τ_{ij}^{TO}) and the respondent's (τ_{ik}^{TE}) categories. This is an unrealistic assumption, hence the lack of fit for this model.

To determine whether educational inequality in Poland changed over these years, we turn to the constant fluidity model (CnSF), denoted TO TE OE. The CnSF model imposes temporal invariance on all the odds ratios in the cross-classification of the fathers' categories by educational levels. Specifically, it says that the association between origin and education (OE) is significant but remains constant. According to the goodness-of-fit tests, in the case of men this model fits the data well enough (the critical $p = 0.054$ for an $L^2 = 50.6$ with 36 degrees of freedom, BIC = -272.0 , and $\Delta = 2.5\%$, which indicates that only 2.5 percent of all cases would need to change in the observed

Table 4.2. Measures of model fitting with respect to relationships between fathers' socio-occupational categories and sons' (or daughters') levels of education and socio-occupational categories

Model	df	L ²	Δ	BIC
M e n				
A. Survey year—father's occupation—son's education (TOE)				
A1. [TO][TE]	45	1615.2 (0.0000)	17.6	1211.9
A2. [TO][TE][OE]	36	50.6 (0.0543)	2.5	-272.0
A3. [TO][TE][OEunidT]	32	47.7 (0.0365)	2.5	-239.0
B. Survey year—son's education—son's occupation (TED)				
B1. [TE][TD]	45	4462.0 (0.0000)	28.6	4058.7
B2. [TE][TD][ED]	36	57.2 (0.0137)	2.2	-265.4
B3. [TE][TD][EDunidT]	32	38.8 (0.189)	1.6	-248.0
C. Survey year—father's occupation—son's occupation (TOD)				
C1. [TO][TD]	45	1658.0 (0.0000)	18.2	1258.2
C2. [TO][TD][OD]	36	36.0 (0.4685)	1.9	-283.8
C3. [TO][TD][ODunidT]	32	34.0 (0.3698)	1.9	-250.3
W o m e n				
A. Survey year—father's occupation—daughter's education (TOE)				
A1. [TO][TE]	45	1650.4 (0.0000)	17.8	1243.4
A2. [TO][TE][OE]	36	59.5 (0.0081)	2.9	-266.0
A3. [TO][TE][OEunidT]	32	50.7 (0.0191)	2.5	-238.7
B. Survey year—daughter's education—daughter's occupation (TED)				
B1. [TE][TD]	45	5108.0 (0.0000)	32.8	4703.0
B2. [TE][TD][ED]	36	74.2 (0.0002)	2.4	-249.8
B3. [TE][TD][EDunidT]	32	37.1 (0.2463)	1.6	-250.9
C. Survey year—father's occupation—daughter's occupation (TOD)				
C1. [TO][TD]	45	1747.3 (0.0000)	18.0	1346.1
C2. [TO][TD][OD]	36	51.1 (0.0487)	2.4	-269.8
C3. [TO][TD][ODunidT]	32	34.2 (0.3637)	1.8	-251.1

Notation: T—survey year, O—father's occupation, E—son's (daughter's) education, D—son's (daughter's) occupation

three-dimensional table TOE to get the distribution implied by the model). This result lends support to the hypothesis about the stability of educational inequalities between 1982 and 2006.

Next we apply the log-multiplicative social fluidity model (LmSF), also known as the Unidifference model, in the form:

$$(2) \quad F_{ijk}^{TOE} = \tau \cdot \tau_i^T \cdot \tau_j^O \cdot \tau_k^E \cdot \tau_{ij}^{TO} \cdot \tau_{ik}^{TE} \cdot (\tau_{jk}^{OE})^{\Phi_i}$$

While the CnSF model says that the origin-education association remains the same in each year, the LmSF model $(\tau_{jk}^{OE})^{\Phi_i}$ tells us that, although the pattern of origin-education odds ratios is always the same, the strength of the log-odds ratios is higher or lower according to the value of Φ_i (Xie 1992). In other words, the LmSF model corresponds to a hypothesis of constant changes over time (unidifference), which are identified by factor $(\tau_{jk}^{OE})^{\Phi_i}$. The analytical utility of the LmSF model lies in the fact that the differences in OE are captured by differences in the value of this parameter.

We estimate this model for both genders. For men L^2 is 47.7 with 32 degrees of freedom, $p = 0.037$ and $\Delta = 2.5\%$. Yet there is no significant improvement in the model fit compared with the CnSF model. This indicates that the dominant pattern in the period 1982–2006 was temporal invariance in the effect of origin on educational level. This stability can be readily summarized in terms of parameter Φ_i shown in Table 4.3. With the log-multiplicative factor for 1982 constrained to 1, values greater than 1 for consecutive years would indicate a stronger OE association than in 1982, while values smaller than 1 would show a weaker association. As we can see, the values of Φ_i show no clear pattern for either men or women, which substantiates the thesis that there was an absence of significant changes in educational inequality.

Let us turn to the second constitutive factor of social fluidity, the association between respondents' educational level and their current occupation (ED). We first tested the constant fluidity model (CnSF) model. In the case of men, $L^2 = 57.2$ at 36 df, with $p = 0.014$ ($\Delta = 2.2$; see Panel B in Table 4.2).

Next we fitted the Unidifference model with the log-multiplicative factor, which indicates how the association between educational level and occupational affiliation changes over time (see Table 4.3). The parameters of this model indicate that, compared to 1982, the ED association remained relatively stable until 1992 and then decreased considerably: in 2006, the log-

Table 4.3. Parameters of change over time in the strength of relationship between fathers' socio-occupational categories and offspring's (i.e., respondents') education (OE), between respondents' education and socio-occupational categories (ED), and between fathers' and respondents' socio-occupational categories (OD)

Survey year	1982	1988	1992/1993	1998/1999	2004/2006
Men					
OE _{unidT}	1.000	1.000	0.873	0.944	0.984
ED _{unidT}	1.000	0.938	0.992	0.857	0.767
OD _{unidT}	1.000	0.964	0.883	0.987	0.967
Women					
OE _{unidT}	1.000	0.909	1.055	1.074	0.828
ED _{unidT}	1.000	0.914	0.921	0.838	0.674
OD _{unidT}	1.000	0.840	1.014	0.958	0.705

multiplicative factor = 0.767. The Φ_i values suggest that in Poland after the mid-1990s, the effect of education on occupational attainment declined. This may, to some extent, reflect a partial devaluation of educational credentials resulting from the expansion of tertiary schooling.

The dynamics of relative mobility is at the core of our general question: *How has social fluidity evolved during the period 1982–2006?* In addressing this issue, we turn to the TO TD OD model, which assumes a lack of significant change in the openness of social structure. Panel C of Table 4.2 provides results of the general test for this hypothesis for men and for women.

Test results for the TO TD OD model provide a better fit for men than for women, which suggests a lower stability of the OD link among women. Still, the Unidiff parameters for OD in female samples do not show a uni-directional rise or decline. The same conclusion applies to educational inequality. Parameters of the Unidifference model in OE for women do not reveal clear-cut tendencies, although in 2004–2006 this association was weaker (0.828) than in previous years. What clearly decreased is the impact of education on occupational position. As was the case for men, the Unidiff parameters in the female samples demonstrate a declining role of education in determining occupational outcomes. For 2002–2006 this is more pronounced for women than for men, as the values of $\Phi_i = 0.838$ (2002) and $\Phi_i = 0.674$ (2006) indicate (see Table 4.3).

RELATIVE MOBILITY AND THE OPENNESS OF SOCIAL STRUCTURE WITH EDUCATION ROLE CONSIDERED

The results so far indicate that between 1982 and 2006, Poland experienced a decline in the association between education and occupational position, and little change in the origin-education and the origin-destination associations. To provide deeper insights, we replicated the analysis for the four-dimensional table TOED. Since almost half (48 percent) of the entries in the women's table contained fewer than five cases, we had to restrict our analysis to men.⁸

Regarding the three constituent factors of fluidity patterns—OE, ED, and OD—the primary questions are (a) how each of these factors changed over time, and (b) whether each of them changed over time by the third variable—for instance, did the effect of social origin on destination systematically decline in higher-educated levels while remaining stable among low-educated categories?

Let us focus on this latter situation, which involves testing for compositional effects. Among stratification researchers, such “compositional” effect is usually considered a factor for which education is an important intermediate variable (Hout 1988; Müller and Pollak 2004; Vallet 2004).

To examine the role of compositional effects, we tested for variation in OD between educational levels—whether the occupational advantage/disadvantage offered by social origin decreased in higher educational categories (E), and how it developed over time. By allowing OD to vary across E, one can estimate the direct effect of the father's category on occupational position. We did similar analyses for a compositional effect of social origin. It is important to know whether the waning effect of education on occupational position (ED) systematically declined only in some fathers' categories (O) or in all. Concerning the third association—between social origin and educational attainment (OE)—it does not make sense to break it down by occupational categories (D), as both O and E are causally earlier than D. Therefore, we will examine educational inequalities only within the three-dimensional table TOE.

In Tables 4–6 we report results for the dynamics of the association between origin and destination related to the compositional effect of educa-

⁸ The major obstacle for including women was a lack of information on their occupation at the time of the survey, as many females were not in the workforce.

tional expansion, while Tables 7–9 provide the goodness-of-fit measures for the models concerning the decomposition of ED by social origin.

We begin with the analysis of the direct effect of social origin on occupational position. The baseline model TEO TED (Model 1 in Table 4.4) incorporates only temporal changes in the origin-education and education-destination associations; we assume that the effect of the fathers' class category on the sons' occupational position is completely explained through the sons' education. In other words, the OD association is solely indirect—social origin affects education, and education affects occupational outcomes. Since the data do not support this assertion, in the second model (TEO TED OD) we added OD, which corresponds to the direct (and time-constant) effect of social origin on destination. This model, in which the OD association is assumed constant both over time and across all educational levels, fits the data well at $p = 0.588$ ($L^2 = 166.2$ with 171 df).

Table 4.4. Measures of model fitting with respect to relationships between fathers' socio-occupational categories and sons' levels of education and socio-occupational categories

Model	df	L^2	Δ	BIC
Table TEOD				
1. [TEO][TED]	180	873.3 (0.0000)	11.9	−725.8
2. [TEO][TED][OD]	171	166.2 (0.5882)	3.7	−1352.9
3. [TEO][TED][TOD]	135	134.9 (0.4860)	3.3	−1064.4
4. [TEO][TED][OD _{unide}]	167	163.9 (0.5535)	3.6	−1319.7
5. [TEO][TED][EOD]	144	147.7 (0.3986)	3.5	−1131.6
6. [TEO][TED][OD _{unide}]	168	161.0 (0.6368)	3.6	−1331.5
7. [TEO][TED][OD _{unide}]	152	135.8 (0.8230)	3.0	−1214.6

These results indicate that some part of OD is not mediated by education and remains constant over time. When we consider either the total or direct association between origin and destination categories, we generally do not find significant changes in 1982–2006. This conclusion is further substantiated by Model

3, which introduces a supplementary parameter, TOD, yet adding it does not result in a significant improvement of fit (L^2 decreases only by 31.3 with 36 df). This indicates that after controlling for education, there was no change over time in the odds ratios between social origin and occupational categories.

It is now time to assess whether any systematic tendencies in OD acted across educational levels. They might have counterbalanced each other, which would account for the apparent lack of changes over time. To test for specific interactions, we estimated a series of models that introduce a Unidiff effect on education. We consider this relationship over time, since one cannot rule out the possibility that the intermediary role of education changed in a substantial way. Thus in our next models, we add Unidiff parameters for time, educational level, and then interaction between these variables in order to test their joint effect on relationship between social origin and occupational position.

In Model 4 (Table 4) we have imposed a Unidiff effect for time—model TEO TED OD_{unidT} yields the parameters for OD_{unidT}, which indicate whether the direct association OD increased, decreased, or remained unchanged in 1982–2006. According to the likelihood ratio tests, this model does not perform any better than Model 2 (a decrease of L^2 by 2.3 at 4 df), but for getting a deeper insight into the pattern of the net association between social origin and occupational position, it is instructive to examine the parameters obtained under this model for specific periods of time. We report them in Table 4.5.

Table 4.5. Parameters of change in the strength of the relationship between fathers' and sons' socio-occupational categories for model TEO TED OD_{unidT}

Survey year	1982	1988	1992/1993	1998/1999	2004/2006
OD _{unidT}	1.000	0.939	0.881	1.126	0.952

In 1982–1993 the direct association OD somewhat decreased (from 1 to 0.881), then increased until 1999 (to 1.126), and, finally, weakened again (to 0.952). This picture demonstrates a lack of clear-cut trends in social openness in Poland in 1982–2006.

However, one cannot exclude changes in this association on certain educational levels in some periods of time. We seek such interactions using Model 5 (TEO TED EOD). In terms of the goodness-of-fit statistics, this model cannot be rejected; it is not significantly better than Model 2 (L^2 decreased

by a marginal value of 18.5 with 27 df). There is no sign of a difference in the direct effect of the father's category on occupational position across the analyzed educational levels.

The unidifference model TEO TED OD_{unidE} (Model 6) also does not significantly improve the fit compared to the model TEO TED OD (L^2 decreased only by 5.2 with 3 df). It is possible, though, that this overall statistic does not fully capture the compositional effect of an increasing size of more educated categories. Hence we examine the parameters OD_{unidE} from the unidifference model, presented in the first row of Table 4.6.

Table 4.6. Parameters of change in the strength of relationship between fathers' and sons' socio-occupational categories with respect to education (TEO TED OD_{unidE}) and change over time (TEO TED OD_{unidTE})

Parameters	Education			
	primary	incomplete secondary	complete secondary	tertiary
OD _{unidE}	1.000	1.016	1.304	1.110
OD _{unidTE}				
1982	1.000	1.238	1.472	0.512
1988	1.186	0.910	0.939	1.223
1992/1993	0.861	0.960	1.500	0.391
1998/1999	0.996	1.307	1.462	3.193
2004/2006	0.502	1.033	1.668	1.636

The estimated parameters reveal, albeit with some irregularities, that the direct effect of origin on destination is generally stronger on the higher rather than the lower educational levels. In contrast to results for Germany, France, and the United States, the rise in education in Poland tends to make social fluidity more rigid.

To model this variation by adding the time dimension, we estimated the TEO TED OD_{unidTE} model (see Model 7 in Table 4.4), which incorporates a Unidiff effect over time. This model fits the data better, as reflected by the drop in L^2 (30.4 at 19 df), indicating the presence of compositional effects related to education.

Looking at the parameters presented in Table 4.6, it appears that until the end of the 1990s, the OD relationship was stronger on higher educational levels. It is hard to say whether the same pattern existed in the earlier period, because due to low stability, some parameters should be interpreted with caution. In our view, results for this relationship received for the more recent stages of the transformation of the system are more reliable; one can see that in higher educational categories (particularly university education), the direct effect of social origin on occupational outcomes increased rather than decreased.

A further step in our analysis is to assess the effect of education on occupational attainment across the fathers' occupational categories. This should help determine whether the declining trend in the education-occupation association appears in all categories of social origin. A significant variation of ED across the fathers' categories may indicate another kind of compositional effect; we check for it by estimating the models TEO TED ED_{unidO} and TEO TED ED_{unidOT} (see Models 6 and 7 in Table 4.7).

Table 4.7. Measures of model fitting with respect to relationships between fathers' socio-occupational categories and sons' levels of education and socio-occupational categories

Model	df	L ²	Δ	BIC
Table TEOD				
1. [TEO][TOD]	180	3383.7 (0.0000)	24.8	1784.6
2. [TEO][TOD][ED]	171	191.6 (0.1343)	3.8	−1327.6
3. [TEO][TOD][TED]	135	134.9 (0.4860)	3.3	−1064.4
4. [TEO][TOD][ED _{unidT}]	167	170.5 (0.4105)	3.7	−1313.2
5. [TEO][TOD][OED]	144	171.9 (0.0563)	3.6	−1107.4
6. [TEO][TOD][ED _{unidO}]	168	190.7 (0.1110)	3.7	−1301.8
7. [TEO][TOD][ED _{unidOT}]	152	155.9 (0.3965)	3.2	−1194.4

Table 4.7 provides the summary statistics for a series of log-linear models assessing the net association between education and destination within the fathers' occupational categories. The baseline model (Model 1) assumes a lack of direct ED association; it does not fit the data. A constant ED term added in the second model provides a satisfactory fit, and the third model—assuming

changes in the strength of this association in 1982–2006—fits even better and may be considered an adequate representation of the mobility regime. To provide a detailed description of these changes, we estimated Unidiff parameters ED in the unidifference model (Table 4.8). The cross-time differences reflect a clear trend toward a weakening of the direct (unrelated to social origin) impact of education on occupational position (from 1.000 in 1982 to 0.714 in 2006).

Table 4.8. Parameters of change in the strength of the relationship between education and socio-occupational categories for model TEO TOD ED_{unidT}

Survey year	1982	1988	1992/1993	1998/1999	2004/2006
ED _{unidT}	1.000	0.928	0.959	0.815	0.714

In the first row of Table 4.9, we present the Model 6 parameters (see Table 4.7) for the education-destination association within the fathers' categories—they show whether social origin differentiates the effect of education on occupational outcomes. Differences are negligible. There are no signs of a higher “value” of educational credentials among the sons of higher managers and

Table 4.9. Parameters of change in the strength of relationship between education and socio-occupational categories (ED) for categories of social origin (model TEO TOD ED_{unido}) and change over time (model TEO TOD ED_{unidOT})

Parameters	Intelligentsia	Other non-manual workers and business owners	Manual workers	Farmers
ED _{unido}	1.000	0.930	0.931	0.976
ED _{unidOT}				
1982	1.000	1.344	1.126	1.031
1988	1.121	0.902	1.005	1.106
1992/1993	0.992	1.143	1.000	1.102
1998/1999	1.273	0.781	0.831	0.995
2004/2006	0.815	0.797	0.840	0.672

professionals, which might have amplified social closure. More information comes from parameters obtained for the last model, which introduces a Unidiff effect on social origin and time (ED_{unidOT}). These results—shown in Table 4.9—provide an additional confirmation of the declining association between education and occupational position. We find a consistent trend of devaluation of educational credentials in 1982–2006 with respect to occupational outcomes. The fact that it takes place in the majority of the fathers' categories suggests a lack of compositional effect.

Conclusion

For Poland between 1982 and 2006, we disentangled the intergenerational occupational association into four linkages: (i) relative mobility defined by the effect of social origin on destination, (ii) the relationship between social origin and education, (iii) the net effect of education on destination, and (iv) the compositional effect of education reflected in the rising share of more educated categories in the social structure. According to our analysis, intergenerational mobility rates rose only among women, which may mean that the modernization of the Polish occupational structure for women was more delayed than it was for men. Changes in social fluidity were neither systematic nor easily interpretable. We found a consistent trend of declining association between education and occupational position, but no unidirectional change in the social origin-education link and relative mobility, considered in terms of the association between origin and destination.

Beginning in the late 1990s, for men, the origin-destination association generally increased on the higher (rather than lower) educational levels. This differentiates Poland from a number of Western societies in which greater openness among more educated categories makes social stratification more fluid by means of the compositional effect.

The decline of the effect of education on occupational position is one of the most striking features over the last decades. It should be investigated whether this decline relates to the educational diploma losing significance in favor of other credentials, such as apprenticeship, job experience, or job seniority. For prospective employers, these are “signals” that are instrumental in recruiting candidates for jobs and in rewarding them (Spence 1973).

A second possible explanation for the weakening of the association of education and occupational position in Poland could be changes in the Polish

educational system, particularly the declining role of vocational schooling. According to international research (see Müller and Gangl 2003), the education-occupation link is stronger in economies favoring occupational labor markets (OLM), which channel the supply of various qualifications to the occupational structure (e.g., Germany, Austria, some Scandinavian countries). The link is weaker in countries such as Great Britain or Ireland, where schools provide individuals with general education, while experience and specific skills are gained on the job within the internal labor markets. The system of vocational schools, which was well developed in communist Poland, was closer to the OLM system. Future researchers should investigate whether the decrease in vocational schools and the increase in general high schools after 1989 contributed to the weakening impact of formal education on allocation to occupational positions.

Another macro-structural factor to be considered is a growing disparity between the educational system and the demands of the labor market. The considerable growth of tertiary education produced a surplus of graduates who could not be absorbed by the occupational system, since the relative size of the category of higher managers and professionals did not significantly increase. From 2000 to 2009, the latter accounted for only 6–9 percent of the adult labor force, which is much less than in most European countries (Domański 2007). Since the supply of highly educated candidates did not find a sufficient demand in the occupational structure, the market value of education decreased. Of course, inflation in the value of college diplomas only partially explains the weakening impact of education on occupational position, since it refers only to the youngest cohorts who are just beginning their occupational careers. Certain professional groups (e.g., lawyers, medical doctors), following the lead of Western professional associations, have sought to limit recruitment by requiring educational certificates. It will be interesting to see whether this strategy will eventually strengthen the effect of education on occupational attainment.

Appendix A

Table A.1. Mobility tables for men and women (percentages), 1982–2004/2006

Men					Women				
1982									
O\D	1	2	3	4	O\D	1	2	3	4
1	2.0	1.6	1.5	0.2	1	1.2	2.7	0.5	0.1
2	2.5	3.9	5.6	0.4	2	1.3	9.5	2.3	0.7
3	2.8	7.0	22.6	1.8	3	1.7	17.9	11.0	2.0
4	2.5	5.9	20.8	18.8	4	1.3	12.2	11.2	24.6
1988									
O\D	1	2	3	4	O\D	1	2	3	4
1	1.8	1.3	1.4	0.3	1	1.0	3.5	0.7	0.2
2	3.2	5.6	6.7	1.1	2	1.7	10.8	3.3	0.8
3	2.8	7.8	24.3	1.9	3	1.5	19.4	13.4	2.7
4	1.8	5.5	18.4	16.2	4	0.6	12.6	11.8	16.0
1992/1993									
O\D	1	2	3	4	O\D	1	2	3	4
1	2.2	3.3	1.2	0.2	1	1.3	2.6	0.3	0.1
2	2.5	5.2	6.4	1.1	2	0.9	12.7	4.1	0.3
3	3.2	11.0	27.8	1.8	3	0.9	25.0	13.0	1.4
4	2.1	6.4	15.7	9.9	4	0.6	13.4	12.6	11.0
1998/1999									
O\D	1	2	3	4	O\D	1	2	3	4
1	2.3	2.9	1.4	0.1	1	1.9	4.5	0.3	0.0
2	1.6	7.0	8.2	0.4	2	2.0	12.5	3.2	0.7
3	2.1	12.4	30.0	0.9	3	1.6	24.4	13.9	1.2
4	2.0	6.8	15.1	6.9	4	0.4	14.4	10.6	8.5

Men					Women				
2004/2006									
O\D	1	2	3	4	O\D	1	2	3	4
1	1.9	4.1	1.7	0.2	1	1.6	4.0	0.9	0.0
2	2.1	11.7	7.4	0.9	2	2.2	13.1	4.3	0.8
3	2.0	12.8	27.7	2.2	3	1.9	28.0	11.9	2.1
4	1.0	4.9	12.4	7.1	4	1.0	13.2	8.4	6.7

O—father's occupation; *D*—son's (daughter's) occupation.

Socio-occupational categories: 1—senior managers and specialists, 2—other non-manual workers and small proprietors, 3—skilled and unskilled manual workers, and 4—farmers.

Table A.2. Mobility tables for men by year of research, educational level, fathers' socio-occupational categories, and respondent socio-occupational categories (weighted counts).

T	E	O/D	1	2	3	4
1982	1	1	0.0	0.0	0.0	0.0
		2	0.0	4.0	22.0	4.0
		3	0.0	14.0	99.0	18.0
		4	0.0	27.0	173.0	226.0
	2	1	0.0	1.0	15.0	0.0
		2	0.0	6.0	51.0	1.0
		3	2.0	22.0	224.0	9.0
		4	1.0	21.0	141.0	62.0
	3	1	6.0	16.0	8.0	1.0
		2	10.0	42.0	19.0	1.0
		3	16.0	56.0	50.0	2.0
		4	8.0	34.0	27.0	19.0
	4	1	27.0	10.0	2.0	2.0
		2	32.0	13.0	1.0	0.0
		3	29.0	23.0	0.0	1.0
		4	32.0	15.0	2.0	3.0

O—father's occupation, *D*—son's occupation, *E*—son's educational level, *T*—survey year.

Socio-occupational categories: 1—senior managers and specialists, 2—other non-manual workers and small proprietors, 3—skilled and unskilled manual workers, and 4—farmers.

Educational categories: 1—elementary, complete or incomplete, 2—vocational or incomplete secondary, 3—complete secondary, and 4—post-secondary or tertiary.

T	E	O\D	1	2	3	4
1988	1	1	0.0	0.0	3.0	0.0
		2	0.0	9.0	30.0	9.0
		3	0.0	21.0	166.0	21.0
		4	1.0	31.0	197.0	288.0
	2	1	0.0	2.0	21.0	3.0
		2	0.0	28.0	96.0	12.0
		3	2.0	50.0	350.0	22.0
		4	0.0	34.0	233.0	96.0
	3	1	3.0	13.0	6.0	4.0
		2	17.0	59.0	35.0	5.0
		3	20.0	93.0	91.0	5.0
		4	15.0	48.0	32.0	17.0
	4	1	43.0	18.0	4.0	0.0
		2	63.0	44.0	7.0	1.0
		3	48.0	33.0	4.0	1.0
		4	29.0	25.0	0.0	6.0

T	E	O\D	1	2	3	4
1992/1993	1	1	0.0	0.0	0.5	0.0
		2	0.0	4.5	8.7	4.0
		3	0.0	9.6	66.1	10.0
		4	0.0	8.7	75.8	67.5
	2	1	1.2	1.1	7.1	2.0
		2	0.0	7.5	44.7	5.4
		3	0.8	33.2	185.0	7.9
		4	0.0	16.9	79.6	31.0
	3	1	5.6	21.0	5.3	0.0
		2	7.8	32.0	16.2	1.4
		3	8.3	49.5	48.5	2.1
		4	6.3	29.7	13.3	9.2
	4	1	16.6	13.6	0.0	0.0
		2	19.0	12.6	0.0	0.7
		3	26.2	27.2	2.3	0.0
		4	16.5	14.6	2.0	0.0

T	E	0/D	1	2	3	4
1998/1999	1	1	0.0	0.0	1.0	1.0
		2	0.0	1.0	8.5	0.0
		3	0.0	8.8	59.5	4.8
		4	0.0	9.4	57.0	35.1
	2	1	0.0	3.2	7.7	0.0
		2	1.0	11.9	43.6	2.0
		3	3.4	27.8	167.3	1.8
		4	0.0	20.2	69.0	14.8
	3	1	1.0	9.5	4.0	0.0
		2	5.2	36.0	21.1	2.0
		3	8.0	57.3	48.8	1.8
		4	3.3	23.7	14.7	14.1
	4	1	20.7	14.4	0.5	0.0
		2	8.3	16.2	3.1	0.0
		3	8.2	21.4	4.2	0.0
		4	14.9	10.1	0.0	0.0

T	E	0/D	1	2	3	4
2004/2006	1	1	0.0	1.2	0.9	0.0
		2	0.0	0.9	5.9	1.0
		3	0.0	5.9	34.0	10.8
		4	0.0	2.0	34.0	24.8
	2	1	0.0	4.0	5.3	1.0
		2	0.0	19.1	35.6	5.1
		3	1.0	30.2	180.1	10.2
		4	3.0	20.3	70.1	31.0
	3	1	2.8	20.8	9.8	1.0
		2	4.1	54.8	29.6	2.0
		3	6.8	74.4	61.4	1.0
		4	1.9	17.0	22.9	16.1
	4	1	16.7	15.9	1.8	0.0
		2	17.5	46.0	5.0	0.9
		3	13.1	21.2	11.0	1.2
		4	5.6	11.0	1.0	1.0

CHAPTER FIVE

Social Change, Educational Expansion, and Inequality in Access to Education

Zbigniew Sawiński

The purpose of this chapter is to compare social barriers in the access to education in Poland in the era of the People's Republic (1944–1989) and nowadays, over two decades after the start of the system transformation. Empirical results obtained in Poland at the beginning of the 1980s make it possible to estimate the degree of educational inequality before the post-communist transformation. These results are compared with newer findings that come from studies completed after 2000. By using the same research methods for both time periods, we were able to determine that the transformation, and its accompanying reforms of the educational system, did not reduce inequality in access to education.

This chapter presents possible reasons why this was the case. One of them was that the impact of the 1999–2002 middle-school reform was only short-lived. Even though, for a brief period, the reform reduced inequality in access to different types of secondary schools, its effects were soon neutralized by various counter-measures that parents took to help their children succeed in the post-reform school system. This demonstrated how the mechanisms of social stratification can counteract the effects of educational reforms introduced to promote a more open society. The post-communist transformation eliminated barriers that existed in the People's Republic of Poland. But educational policy did not take into account the new rules of class formation, which replaced the old ones. Therefore, attempts to intervene in these processes turned out ineffective.

Educational Inequality in the People's Republic of Poland

The educational system of the People's Republic of Poland (1944–1989) was designed to ensure a constant inflow of workers into the centrally planned and technologically backward economy. The general, and legally mandated, education consisted of the eight-grade (before 1967, seven-grade) elementary school, whose completion granted credentials for attending one of the three kinds of higher-level schools.¹ These were (i) four-grade general (comprehensive) secondary school (SG), providing the graduate with a maturity certificate (*matura* in Polish) allowing him/her to enroll—after a successful entrance exam—in the whole range of institutions of tertiary education; (ii) four- or five-grade secondary vocational school (SV) providing the graduate with a diploma of professional technician and a maturity certificate (optional), which granted credentials for either entering the workforce directly or enrolling (after a successful entrance exam) into an institution of tertiary education; and (iii) two- or three-grade basic vocational school (BV) aimed at teaching the basics of occupational skills as well as attitudes required for industrial work.

Schools of the third kind started appearing only in the early 1950s. Yet by the end of the Gierek era—that is, in the late 1970s—they absorbed over half of the relevant school-age population. In terms of skills offered, these schools focused on traditional “male” occupations, like that of a miner or foundry worker. For youth of farmer origins, mainly boys, the system offered placements in BV agricultural training schools, the completion of which was required to succeed one's parents as a farm owner.² In this situation many teenage girls landed, by necessity, in four- or five-grade secondary schools (general or vocational) aiming at learning skills required for work as routine office workers in the health-care or service sector. Because of the limited number of places in institutions of tertiary education—for only about 10 to 12 percent of youth cohorts—only a small fraction of the youth selected secondary schools with the goal of studying at colleges or universities (Zahorska 2007).

¹ Schemes for the educational system in Poland in the years of communism as well as post-2000 have been included in Appendix B.

² Poland was the only country of the former Eastern bloc that did not collectivize agriculture. Most of the arable land consisted of small private farms, usually transmitted from father to the eldest son.

The four-and-a-half decades of the People's Republic of Poland included the 1950s and 1960s. It was a time when many other countries intensively invested in education, considering it an important factor in both economic growth and the development of democratic civil society. By comparison, the Polish educational system developed rather slowly. In the period 1945–1989, educational growth amounted, essentially, to increasing the number of young people graduating from basic vocational schools. However, these schools amounted to an educational dead-end, since their graduates did not gain the right to compete for enrollment in colleges and universities.

The brief period of unified general education (seven or eight years) meant that at 15 years of age, students had to decide which career track to pursue. The decision on the choice of post-elementary school practically determined the individual's ultimate education. This branching point—which we called the first educational transition to the next schooling level—played the role of a basic link in generating educational inequality in Poland. There was also the second educational transition between the schooling levels, faced by the graduates of secondary schools. They had three options: (i) to attempt to enroll in an institution of tertiary education (college or university), (ii) to continue education in two- or three-grade post-secondary vocational schools (PSV) granting the graduate a diploma of technician,³ or (iii) to stop formal schooling at the level of secondary education. Selections at the second branching point had less impact on total educational inequality, since only a minority of youth (30–40 percent) had a chance to face it. It is also worth mentioning that the intra-school selections were very limited in Poland, because the schools were considered responsible for such failures of their students (this is what Ralph H. Turner [1960] described as “sponsored mobility”). In effect, almost all educational selections happened at the two branching points, where students and their parents had to decide whether to continue schooling or not, and if so, which school to choose.

Therefore, it was not surprising that studies on educational inequality in Poland focused on selections occurring at two branching points. In the fall of 1981 (two months before the imposition of martial law), two national

³ These schools admitted the secondary school graduates, both those who obtained the maturity certificate and those who did not.

surveys were conducted.⁴ The first followed the research scheme of a “life cycle” study. It involved a sample of 1,526 individuals aged 25–44. The survey contained detailed questions concerning the course of the respondent’s educational career, including the type and the name of each school the respondent attended, the year of enrollment and the year of leaving, the mode of studying (e.g., as a day student, night student, or part-time student), and the kind of graduation diploma or occupational title received. Questions also addressed the respondent’s family and childhood environment, such as the size of the childhood home, the number of siblings, and finally, the education and occupation of both parents when the respondent was 14 years old (Sawiński 1986, 431–45).

The detailed questions regarding the course of the respondents’ schooling process made it possible to reconstruct the respondents’ choices at two inter-school transition points—after completing elementary and, later, secondary school. At each transition, the full spectrum of optional educational tracks was taken into account. At the first transition, four such tracks were distinguished: (i) abstaining from further schooling, (ii) enrolling in a BV school, (iii) enrolling in a SV school, and (iv) enrolling in a SG school. At the second transition three tracks were identified: (i) abstaining from schooling after secondary education, (ii) enrolling in a two-grade PSV school, and (iii) enrolling in college or university.

The second survey concerned the two educational branching points directly. It was carried out on two samples of 700 respondents—graduates of elementary schools (first sample) and secondary schools (second sample) who graduated in June 1981 (Stasińska 1986). In interviews completed in the fall of 1981, interviewers, asked, among other things, about the school the respondent was currently attending. This made it possible to reconstruct the choices made on both the first and the second branching point, similarly to the first study. Both surveys used an identical way of measuring the characteristics of social background.

⁴ It should be noted that both surveys involved quota samples. Random samples were rarely used at the time; they prevailed in projects carried out by the Central Statistical Office, politically subordinated to the country and party rulers. However, research projects like those discussed—completed on multilevel stratified quota samples and diligently, even painstakingly conducted—used to yield valid results, mainly because in this period, few of those approached refused to take part in the study.

The results of these surveys were used to estimate the changes in educational inequalities in the postwar period, up to 1981 (Sawiński and Stasińska 1986). This task, however, carried certain limitations. The first study was conducted on a relatively small sample and covered only 20 one-year age cohorts. Therefore, the respondents were clustered into two aggregated cohorts, each grouping 10 one-year original cohorts. The first cohort included respondents born between 1937 and 1946. Most of them finished elementary school between 1951 and 1960, and graduated from secondary schools between 1955 and 1964. The second cohort consisted of respondents born between 1947 and 1956. Most of them finished elementary school between 1961 and 1971, and graduated from secondary schools between 1965 and 1975.

Table 5.1 presents the results concerning the relationship between social background and choices of educational track made at the first transition point in the periods 1951–1960 and 1961–1970, and in 1981. A variant of canonical correlation was applied as a measure of impact of social background characteristics on educational decisions because of the qualitative character of the dependent variable, which was the choice between several educational tracks at a branching point (Kendall and Stuart 1979; Klatzky and Hodge 1971).

It turned out that in choosing an educational track after completing elementary school, the least important factor was the family situation—that

Table 5.1. Canonical correlations between social background characteristics and the choice of educational track after elementary school

Social background characteristics	Transitions in years		
	1951–60	1961–70	1981
Living with both parents	0.058	0.051	0.066
Number of children in the family	0.199	0.195	0.147
Childhood environment (urban-rural)	0.300	0.264	0.283
Father's education	0.373	0.416	0.411
Father's occupation	0.395	0.393	0.399
Mother's education	0.344	0.374	0.425
Mother's occupation	0.396	0.377	0.472
Sample size	608	801	700

Source: Sawiński and Stasińska (1986, 19).

is, whether the respondent was raised by both parents, and the number of children in the family. Childhood environment (urban vs. rural) was slightly more important. Trends here are difficult to identify with accuracy because of low correlations. Significantly higher were correlations for the parental socio-occupational data—the education and occupation of both the father and mother. In the case of the father's occupation, the correlations were stable throughout the period considered. Correlations for other aspects of parental positions fluctuated, making it difficult to identify a trend. However, it cannot be ruled out that at the time of this analysis, the role of the mother's social position was increasing. For 1981, canonical correlations for the mother's education and occupation were clearly higher than for earlier periods.

Results from research completed in other countries revealed, in general, that educational inequality at the first inter-school transition level is either stable or slightly decreasing (Mare 1981; Shavit and Blossfeld 1993). Polish results were basically consistent with this; as in a number of other countries, educational inequality in Poland at this transition was stable.

Similar analysis was performed for the second branching point: after the completion of secondary school. Table 5.2 displays these results. Since the data involve only individuals who reached this transition level (completed the secondary school with *matura*), sample sizes for the first two periods are

Table 5.2. Canonical correlations between social background characteristics and the choice of educational track after secondary school graduation

Social background characteristics	Transitions in years		
	1955–64	1965–75	1981
Living with both parents	0.024	0.059	0.031
Number of children in the family	0.209	0.107	0.082
Childhood environ-ment (urban-rural)	0.199	0.128	0.173
Father's education	0.336	0.265	0.192
Father's occupation	0.407	0.253	0.197
Mother's education	0.375	0.276	0.204
Mother's occupation	0.336	0.409	0.183
Sample size	118	225	700

Source: Sawirski and Stasińska (1986, 51).

small. As in the case of the first transition, parental education and occupation had the highest impact on the choice of further educational track. Changes detected in correlations were not quite regular; however, for the majority of social background characteristics considered, a visible decline occurred at this transition point.

An empirical result indicating a decline in educational inequality between the institutions of secondary and tertiary education would certainly be unique. From the Maximally Maintained Inequality (MMI) hypothesis, it follows that educational inequality should persist as students move from lower higher education. Hence inequality after the completion of secondary school should actually increase (Raftery and Hout 1993). However, researchers noticed such growth in only some countries, while the majority of studies found stable inequality on this level (Shavit and Blossfeld 1993). No country reported a systematic decrease of educational inequality at the transition from secondary schools to tertiary education.

Sawiński and Stasińska (1986) recorded a decline in educational inequality at this transition level but did not explain why it happened. Such an explanation was proposed about a decade later by Heyns and Bialecki (1993), although they found no such decline in their own empirical work. The paradox probably results from the fact that different methods of analysis of educational inequality do not always lead to consistent conclusions. Moreover, an interpretation of social facts is sometimes ambiguous. This was the case for Heyns and Bialecki, whose results were not entirely consistent with their knowledge of the Polish educational system.

Heyns and Bialecki's (1993) study was carried out as part of the *Persistent Inequality* project (Shavit and Blossfeld 1993), which was a milestone in developing knowledge about educational inequality in comparative perspective. The authors based their conclusions on the results of an empirical study of transformations of social structure conducted in 1987/1988 on a random sample of ca. 6,000 economically active men and women. The authors divided respondents into four age-cohorts by year of birth: 1920–1937, 1938–1947, 1948–1959, and 1960–1969. Respondents belonging to the oldest cohort started education before or during World War II, while the remaining cohorts' school careers occurred entirely within the era of the People's Republic of Poland. Heyns and Bialecki (1993, 303) referred to the fact that one of the flagship slogans of communist ideology was to provide access to education to classes previously disadvantaged in this regard. However, their analysis showed that this did not happen.

Heyns and Bialecki analyzed both the changes induced by social background—operationalized by the father's education and occupation—on the attained education level, as well as on the chances of succeeding through consecutive transitions within the school system. They identified four such transitions: (i) graduating from elementary school, (ii) entering secondary school, (iii) graduating from secondary school, and (iv) graduating from an institution of tertiary education. The first and third transitions corresponded to intra-school selections, while the second and fourth involved inter-school transition points. It should be noted that the authors defined the mere fact of continuing schooling after graduating from elementary school as the second transition. This was necessary to comply with the standards of an international project. However, as a result, they did not take into account the fact that secondary schools and basic vocational schools constituted separate pathways, a factor that was crucial in the functioning of Poland's educational system under the former political regime.

Heyns and Bialecki's regression models allowed them to separate the effect of growing percentages of educated young people from the impact of origin on educational attainment. In the OLS regression on the highest level of education achieved, the impact of origin on educational attainment was similar in all cohorts, except the oldest one, where it was slightly higher. However, the authors found that the specificity of the oldest cohort was small (explaining 2 percent of the variance in educational attainment among all respondents), so the conclusion that there were no changes in educational inequality during the postwar period was justified (Heyns and Bialecki 1993, 310–312). Logistic regression analysis of overcoming each of the four transition points defined in the Polish educational system led the authors to a similar conclusion about the persistent nature of educational inequality (Heyns and Bialecki 1993, 316).

Although the results of the quantitative analysis evidenced no change, Heyns and Bialecki devoted extra attention to the specifics of the educational system in Poland, trying to find what really shaped change (or the lack of it) in educational inequality. The focus on educational careers of girls and boys seemed to be most promising in this respect, because they reflected the subordination of the school system to central goals of the socialist economy. As Heyns and Bialecki write (1993, 318–332):

In Poland women are far more likely to enter and graduate from academic secondary school than men, largely as a consequence of their

much lower rates of enrollment in lower vocational schools. . . . Socialist educational policies were not designed to increase gender equality or even to attract women in equal numbers to men; by default, however, women substantially increased their share of education. A paradoxical consequence of expanding the skills and technical education of male workers, however, was the overrepresentation of women in elite, non-technical schooling. . . . The socialist educational policy did not alter patterns of educational access for the sons of workers and farmers; instead, ironically, it . . . increased educational opportunity for women of all classes.

Simple logic suggests that greater openness of the educational system for women should translate into greater openness in this respect for men and women together. This effect should occur at least in access to higher education. However, Heyns and Bialecki did not identify such an effect in their regression models, even though they defined secondary-school graduates' completion of university as a separate transition. In this sense, their results did not confirm an earlier hypothesis formulated by Sawiński and Stasińska (1986), according to which the impact of social origin on the choice of the further educational path among secondary school graduates decreased somewhat in the postwar period.⁵

It should be emphasized, however, that Heyns and Bialecki provided a credible explanation of why such a decline should take place. In the first four decades after World War II, the educational expansion in Poland was mainly due to a huge growth in the number of basic vocational schools rather than, as in many other countries, the growth of academic-oriented secondary schools preparing graduates to enroll in institutions of tertiary education. In those days, BV schools in Poland were available primarily for boys. Thus many girls actually had to choose the full-term secondary schools, which,

⁵ One reason for this discrepancy might be that Sawiński and Stasińska (1986) took into account both tertiary and non-tertiary institutions at this branching point, while Heyns and Bialecki (1993) limited their analysis to university track. As Breen and Jonsson (2000) found for Sweden, different definitions of transition outcomes may lead to different conclusions. Another reason may be that Sawiński and Stasińska studied educational inequality in the context of inter-cohort changes in the availability of schools as well as in the social origin of youth. Heyns and Bialecki, by contrast, using the logit regression, omitted this structural context and limited their interest to the net effects of social origin.

according to Heyns and Bialecki, increased educational opportunities for all girls. Among them there were also girls of lower-class background who had academic abilities and school competence, and who were previously under-represented in full-term secondary schools precisely because of their social origin. We would expect the growing share of this group among secondary school students, as well as among secondary school graduates, to weaken the barriers keeping lower-class students from access to higher education. This would result in a decreasing selectivity of transition between secondary and tertiary education, which was documented by Sawiński and Stasińska's empirical findings and explained by Heyns and Bialecki.

Still, even if inequality at the transition from secondary schools to tertiary institutions indeed declined, it had little effect on the evaluation of total inequality in the whole population, for two reasons. First, less than half of the youth reached this transition in the People's Republic of Poland. Second, a comparison of correlations from Tables 5.1 and 5.2 demonstrates that the inequalities at this transition are much weaker. It follows that the degree of overall educational inequality was determined mainly by origin-based selection at the first educational transition point—after completing elementary school. However, inequality at this transition point—according to results from empirical studies—proved to be stable. We therefore find that the main result in Poland was actually coherent with results obtained in other countries at the time: under the former political regime, educational inequality remained stable.

Empirical studies in Poland also demonstrated that centralized control of the school system in a socialist country did not necessarily mean the reduction of educational inequalities. And even where it did, it did not necessarily occur in the expected manner.

Reforms in the Educational System after 1989

Attempts to reform the educational system after 1989 concentrated primarily on limiting the role of the state and on decentralizing the system management. These changes began in the late 1980s, when private schools started appearing. In 1991 the Polish parliament (*Sejm*) passed a law on education that granted private schools the same rights as state schools, delegated school management to local self-governments, and broadened teachers' and parents' influence on school curriculum and choosing textbooks.

It was a 1998 law that became the real basis of organizational change in the Polish educational system. It lengthened the period of basic general education from eight to 10 years by introducing the “zero” grade for six-year-olds, shortening elementary school from eight to six school years, and introducing a three-grade middle school (*gimnazjum*). Simultaneously, the duration of the former secondary schools was shortened to three years, meaning that the age at which secondary-school students graduated remained the same. The reform did not dismantle the system of basic vocational schools but limited to 20 percent the proportion of youth taking this track. Another new feature was the introduction, in 2002, of a system of external tests and exams: results of final exams taken in the last grade of the newly organized middle schools became the basis for selecting students to different kinds of secondary schools. Furthermore, the maturity certificate became available only through external exams. *Matura* exam results became the sole criterion for admitting the individual into most departments in institutions of tertiary education. This meant eliminating one of the educational barriers—the former entrance exam to colleges and universities.

Given that the structure of the school system in Poland had remained practically the same since the early 1950s, the reforms introduced in the post-communist transformation were quite radical. It seemed that they would have an impact on educational inequality, which remained rather stable under socialism. This impact was not easy to identify. One could point to reasons decreasing, but also to those increasing, educational inequality compared to its level in the former People’s Republic of Poland.

From one point of view, the reform should have diminished educational inequality. Now it was the 16-year-olds (rather than the 15-year-olds), who completed the “zero” grade plus elementary school plus middle school, requiring 10 years (rather than eight) of schooling in all, who faced their first transition to schools of the next level. A longer-lasting uniform and comprehensive education period could have provided students of varying social backgrounds more time to demonstrate both their natural abilities and acquired skills. In addition, being one year older at the time of transition presumably provided more maturity and self-sufficiency, as well as more independence from parental will or aspirations.

The availability of schools at this important transition point changed as well. In the school year 1990–1991, at the very beginning of the post-communist transformation and before any changes in the educational system, over one-half of the youth completing elementary school enrolled in BV schools,

Table 5.3. Percentages of youth starting different types of post-elementary schools (or post-middle schools after 2003) in the period from 1990–1991 to 2005–2006 (in percentages)

School year	BV schools	SV schools	SG schools
1990–91	53.6	25.4	20.8
1992–93	50.3	26.5	23.1
1994–95	43.4	29.7	26.7
1996–97	39.3	32.3	28.2
1998–99	34.3	34.2	31.4
2000–01	31.2	34.4	34.2
2002–03	26.2	31.5	42.1
2004–05	13.6	42.0	44.2
2005–06	15.2	37.3	47.4

Central Statistical Office 2007a, 71. Percentages calculated with respect to the number of graduates (rather than the number of students), which made it possible to account for a differing number of grades (school years) in different types of schools.

while just one-fifth went into full-term SG schools. However, in the year 2005–2006, only 15.2 percent of the young cohort entered BV schools, while 47.4 percent of this cohort enrolled in SG schools (cf. Table 5.3).

Before the reforms, it was at the first transition (after the completion of elementary school) that the crucial decision was made of who would have a real chance to get a tertiary education. Students aspiring to study at college or university sought enrollment in a SG school, the only one that made study at the tertiary level possible. After the reforms, almost one-half of the candidates of the proper age started enrolling in SG schools and, therefore, maintained a real chance at tertiary education. SG schools stopped being the elite channel of educational advancement. In line with this change, the BV schools stopped acting as an educational dead end: only every seventh member of the current cohort of middle-school graduates enrolls in basic vocational schools.

The structure of decision-making at the second transition—after the completion of secondary education—also changed. In 1990 only 10 percent of the population aged 19 to 24 attended colleges or universities, while another 3 percent studied in two- or three-grade PSV schools. Since 41

percent of the population aged 15 to 18 years attended secondary schools at the time, it can be estimated that about 68 percent of secondary-school graduates were terminating their schooling at this point. In 2006, the picture appeared quite different: 38 percent of youth aged 19 to 24 studied at colleges and universities, while another 10 percent studied in PSV schools. Since 78 percent of youth were attending higher secondary schools, the percentage of secondary-school graduates terminating their educational process fell to about 38 percent (Zahorska 2007, 106).

In sum, due to the 1990s reforms of the educational system and widening access to full-term secondary education, both the first and second transition point became more “passable.” This may have contributed to easing their role in generating educational inequality.

However, the possibility that inequality increased cannot be ruled out, as some new barriers could have replaced the old. First of all, the most recent educational reforms replaced the former eight-grade elementary school with a two-level system—a six-grade elementary school and a three-grade middle school. A new, previously unknown, transition point appeared at the junction of these two school levels. Although local self-governments are legally bound to find places in middle schools for all students, they are unable to ensure the same quality of education provided there. Parents with better financial and educational resources are very likely to direct their children to a middle school with a higher quality of instruction, thus increasing their chances of getting into a secondary school with a good reputation three years later and, at the end, to continue education at the tertiary level.

A somewhat similar diversification may be developing among general secondary schools. Some schools offer their students a better environment for developing their talents than others, and vary in how well they prepare students for maturity examinations. Besides, the school agenda is not limited to instruction. It also includes overseeing how students develop social relationships that could last for years and possibly help (or not) in their further educational and occupational careers. The elitist quality of some SG schools was known even before the post-communist transformation, but then its functioning was rather marginal. It is quite possible that as accessibility to SG schools in general increases, divisions deepen between elitist ones and the rest.

Tuition, which some schools (and not only private ones) charge their students, increases the potential for educational inequality. In 2006, 33 percent of all students at tertiary level attended private schools and thus had

to cover the full cost of their education. Another 26 percent enrolled in non-stationary programs in public (state-owned) schools (GUS 2007b, 35), which also required tuition. Nowadays, roughly one-half of the students at colleges and universities pay tuition. Obviously, the social position and affluence of the parents is closely related to whether they can afford their child's pursuit of a costly tertiary education. The need to pay tuition may become an important factor strengthening inequality in the access to higher education.

External examination tests could be another source of educational inequality. The results of these tests determine the chances of choosing the most appropriate middle school, and later, a school on a post-middle-school level, and give the opportunity to apply for admission to colleges and universities. Previously, candidates for school had to pass oral exams that allowed the examination committees to take into account the social background of the candidates. Before the 1989 system change, the chances of young people from disadvantaged backgrounds were also boosted by institutional solutions, like the memorable "points for social background"—those of working-class or peasant background applying to institutions of tertiary education were given preference. Actually, this was similar to affirmative-action policies for racial minorities at some American universities and colleges.

The external exams are evaluated anonymously. Therefore, the only way for the candidate to do well is to prepare well. As parents' previous ways of informally influencing their child's admission to a preferred school were eliminated, a kind of pre-examination hysteria ensued. Many parents are willing to pay considerable sums for private tutoring in a variety of subjects (generally, those on which children will be tested), as well as help in obtaining the most useful textbooks, and other ways to prepare their children for the test. After the introduction of these external exams, private test-preparation services in Poland flourished on a previously unknown scale. In addition to being costly, these services are available mainly in the largest cities, where demand is greatest. This generates obvious barriers for young people not living in big cities. Moreover, under the pressure of parents, some schools have started extracurricular activities to help their students learn how to fill out the tests. These activities are usually administered at the expense of actual curriculum and lead to a growing division between schools, which have varying degrees of skill in preparing their students to further their educational careers.

Knowledge about horizontal school diversification is increasing all the time, due to the government policy of making public to parents all informa-

tion concerning the quality of education in each school in Poland. Between 2002, the year the Polish school system introduced standardized tests, and 2012, the most recent year for which data are available, horizontal differentiation among middle schools increased. At the national level, this growth is reflected by a rise of variance—from 12 to 19 percent—in the results of the final middle-school examination, explained by students' enrollment in different schools (called the inter-school variance). The growth itself is not uniform: in the largest cities (of over 100,000 inhabitants), explained inter-school variance rose from 24 to 45 percent, while in the rural environment it remained stable at 6 percent (Dolata, Jasińska, and Modzelewski 2012). This means that, over the decade since the introduction of external exams (tests), the community of middle schools that formally have a uniform curriculum diversified with respect to students' test performance. In such circumstances, the choice of middle school effectively became a new selective transition point that did not exist before the system change.

Educational Inequality in Poland after the System Change

There are many sources of data relevant to the changes in educational inequality in Poland after 1989, yet none aimed at analyzing this problem explicitly. Therefore, their research results are, in this respect, fragmentary. They are better for illustrating various aspects of this phenomenon than for representing it as a whole.

Let us start the analysis with cross-sectional surveys that were completed fairly recently and therefore involved birth cohorts who got their education after the system change. For our purposes, the results of such a study could be analyzed in either of two ways. The first way would be to start by splitting the respondents into two categories—those who completed their education before 1989 and those who did so after 1989. The second way would be to extract from the original sample only those respondents who attained education after 1989 and then compare the results obtained on this limited sample with those conducted in an appropriately earlier time.

The first strategy is widely used in the framework of researching the change in educational inequality by studying cohorts educated in different periods. However, this strategy has some disadvantages. First of all, it does not take into account different mortality rates among individuals with different education (Williams and Collins 1995). Let us consider that the mor-

tality rate is higher among individuals of lower education. In this case, in the oldest cohort, one would find a relative surplus of persons with lower social background who nonetheless managed to attain the highest education level. This could lead to a false conclusion that educational inequality in the oldest cohort was smaller than it really was at the time when its members attended schools. The second drawback stems from the retrospective character of data, which may affect the validity of social background characteristics depending on age cohort: old respondents may have more difficulty than young ones recalling precisely their parents' education and occupation at the time the respondent was, for instance, 14 years old. It is hard to predict the impact of a correlation between the measurement error and the measured characteristic upon analytical results (Hamilton 1981).

For these reasons it seems justified to extract from the study only the youngest individuals who were educated after 1989. The next step would be to compute on such a subsample the estimates of educational inequality level, and then compare them with the corresponding results of surveys completed before the 1989 transformation.

Among the studies completed in Poland in recent years, the European Social Survey (ESS) seems best suited for this purpose. In its two rounds, conducted in Poland in 2002 and 2004, in addition to the question concerning education, respondents were asked to provide the name of the last school they attended or the one they were attending at the time of their research interview.⁶ This information makes it possible to retrieve educational decisions at the first and second transition points. Only respondents who faced these transitions after 1989 were considered in the analysis. This yielded 493 respondents in the case of transition from elementary to post-elementary school, and 556 respondents at the transition after the completion of secondary school. The decision to use ESS 2002 and 2004 also stemmed from the fact that the same classification of occupations (Domański, Sawiński, and Słomczyński 2009) was used to code occupations of both parents in these studies and in the surveys conducted in 1981. This made it possible to classify occupations in all surveys in exactly the same way.⁷

⁶ Also in 2010, respondents were asked to provide the name of their school, but these results were still unavailable at this writing.

⁷ Unfortunately, the computer record of both 1981 surveys does not survive. All comparisons must rely solely on the published information.

The discussed comparison is supplemented with results of the 2006 PISA study (OECD Programme for International Student Assessment). This study pertains to the 15-year-olds in the Polish school system who were then attending the third grade of middle school. In 2006, the original sample was widened (in the framework of the “national option”) and—in addition—comprised a nationally representative sample of 5,000 first-grade students in schools of post-middle level, namely the SG, SV, and BV schools. One year earlier, in 2005, these students decided which school they wished to attend. The only drawback of these data was that they omitted the group who did not continue schooling after completing middle school. Such individuals constituted 5.6 percent of that year’s middle-school graduates (GUS 2007a: 71, 214, 287).

Table 5.4 presents canonical correlations between the social background characteristics and the selections of post-elementary school (or, in 2002–2005, post-middle school) obtained with ESS and PISA data. The ESS data comprised selections made in the period 1991–2004, while the PISA data pertained to the class graduating from middle school in 2005. In addition, Table 5.4 shows average canonical correlations obtained in the 1980s surveys. They involved selections after the completion of elementary school, which occurred in the period 1951–1981. In all surveys, social background characteristics were operationalized the same way as in 1981 (Sawiński and Stasińska 1986, 12–15).

Table 5.4. Canonical correlations between social background characteristics and the choice of educational track at the first transition after elementary school (or after middle school) in 1951–2005

Social background characteristics	Transitions in years		
	average 1951–81	1991–2004	2005
Childhood environ-ment (urban-rural)	0.282	—	0.183
Father’s education	0.400	0.418	0.404
Father’s occupation	0.396	0.399	0.365
Mother’s education	0.381	0.473	0.441
Mother’s occupation	0.415	0.414	0.414
Number of cases in the sample (N)	2226	493	5195

Source: Correlation values for 1951–1981 consist of average correlations from both studies presented in Table 5.1. Data for 1991–2004 come from European Social Survey (ESS), rounds 2002 and 2004 (data preparation described in the chapter). Data for 2005 come from the 2006 PISA study (author’s calculation).

While discussing education reforms introduced in the 1990s, I hypothesized that the role of the first transition (from a unified to a diversified school system) in shaping educational inequality would diminish. The first reason was a considerable increase in the percentage of young people continuing their schooling in general SG schools, which, in effect, caused this track to lose the elitist character it had up to the end of the 1980s. The second reason concerned a decisive drop in the percentage of youth attending BV schools, which for many years constituted a dead end in Poland's educational system.

Results shown in Table 5.4, however, suggest that even after the major educational reform, the first transition point lost very little of its fundamental role in shaping educational inequality. None of the four parental social position characteristics displays a visible decrease in the correlations expressing the impact of social background on the choice of educational track after elementary/middle school. Some decrease appeared only with regard to youth raised in cities compared to those raised in rural areas. This decrease is understandable if one takes into account that the middle-school reform was designed primarily to eliminate barriers between urban and rural areas by introducing uniform rules of financing all schools at middle level, consolidating rural schools, and dismantling the weakest schools at this level. It also introduced a system of busing children to rural middle schools, equipping these schools with computers and Internet access, and taking other actions enhancing their performance (Zahorska 2007).

Similarly, no decrease in educational inequality appeared at the second transition, after completing secondary school (Table 5.5). The period after 1989 was covered only by results obtained on ESS data, which I contrasted with results of the 1981 surveys.

As already mentioned, cross-sectional studies that compare educational inequalities in successive cohorts provide little data on the implications of school reforms. These effects could be short-lived, while the divisions into cohorts aggregate transitions spanning many years. The effects of this school reform might eventually be eliminated by social mechanisms seeking to restore the former status quo, making the short-term effect invisible in research covering the long term.

To enhance our understanding of this issue, let us supplement the findings discussed with conclusions reached on the data from four rounds of the PISA project conducted in 2000, 2003, 2006, and 2009. The first round was carried out before the middle-school reform, when the 15-year-old students under study already passed through the first branching-point and

Table 5.5. Canonical correlations between social background characteristics and further educational tracks after completion of secondary school in 1955–2004

Social background characteristics	Transitions in years	
	1955–1981	1991–2004
Childhood environment (urban-rural)	0.167	–
Father's education	0.264	0.293
Father's occupation	0.286	0.240
Mother's education	0.285	0.350
Mother's occupation	0.309	0.346
Sample size	1043	556

Sources: Data for 1955–1981 come from Sawiński and Stasińska (1986, 51). Average correlations computed for both surveys considered. Data for 1991–2004 come from the 2002 and 2004 rounds of the European Social Survey (ESS).

were attending the first grade of post-elementary schools. The following three studies were completed after the reform; the 15-year-old students were attending their last grade of middle school and were to face the choice of a further educational track within weeks.

The analysis concerns the impact of parental socio-occupational positions on students' PISA results. The latter are not equivalent to decisions on the choice of further educational track but are closely related to them. Schools admit new students on the basis of their scores obtained at the external tests, which strongly correlate with PISA test results (Pokropek 2013). If the parents are able to prepare their child adequately for the external exams and decide to do so, then the result should be reflected in the PISA scores. The students complete the PISA test in March and, just one month later, they participate in external exams.

Table 5.6 presents percentages of variance of the PISA test results, explained by parental education,⁸ separately for two domains: mathematics

⁸ Parental education was measured as the higher of the father's and mother's education. The PISA database also contained information on both parents' occupations and the family income. However, these data were not classified in a uniform way in all PISA rounds, which is why we only used information concerning the father's and mother's education. Supplementary analysis showed that the inclusion of the remaining variables would not, practically speaking, change the conclusions.

and reading.⁹ The 15-year-old students examined in 2003 were the first to complete a full cycle of the post-reform school—the six-grade elementary school followed by the three-grade middle school. The results indicate that in this round of PISA, the impact of parental education on the results of the PISA test was smaller than for the earlier round (2000), which involved the first-grade students of post-elementary schools in the pre-reform system. This is true in the case of both domains tested in PISA, and among both boys and girls.

Table 5.6. Percentages of variance of the PISA test scores, explained by parental education

Year	Mathematics			Reading		
	Total	Boys	Girls	Total	Boys	Girls
2000	13.2	12.8	14.3	14.0	13.3	16.7
2003	10.4	10.1	10.8	10.4	11.1	12.0
2006	12.9	12.4	13.3	11.2	11.9	13.8
2009	15.2	14.5	16.2	14.1	15.2	16.9

Note: Author's calculation. The sample size in each round amounted to about 5,000 students. Parental education was measured as the higher of the father's and the mother's education level.

Two factors—both related to the reform—likely produced this result. The first one is the extension of the uniform curriculum by one year: compared to the pre-reform system, schools gained an additional year to even out the social-background-related differences of their students. The second factor is the introduction of external middle-school final tests, taken by the end of third grade. This was a completely new initiative. Parents were probably taken by surprise and did not have immediate solutions for helping their child succeed at this exam. Therefore, the results of middle-school final exams in 2003—and, indirectly, also those of PISA tests—likely reflected better than ever the level of the student's individual characteristics such as talents, school adapta-

⁹ The third domain of PISA study—performance in science—was omitted. It was introduced in 2000, experimentally. Therefore the 2000 results are not strictly comparable with those obtained in consecutive rounds.

tion, or diligence. These characteristics are largely independent of the parents' socio-occupational position.

Data from the two following PISA rounds reveal that parents acted quickly and effectively to prepare their children for the recently introduced tests. As early as 2006, the impact of parental education on results achieved in the PISA test clearly rose, as compared to 2003; in 2009 it practically returned to the pre-reform level.

These results inform the conclusion that even if educational reforms intended to reduce educational inequality actually do so, the effects may be quickly canceled out by social mechanisms securing the intergenerational transmission of socio-occupational position. In Poland six years was enough to completely eliminate the egalitarian impact of a quite thorough educational reform. Such rapid counteracting of the reform's impact would not have been possible in the pre-1989 centrally planned and managed economy, where the role of the free market was limited, as were the parents' financial resources. It therefore seems very likely that the post-communist transformation in Poland intensified the mechanisms responsible for the intergenerational transmission of social status. These mechanisms control the level of educational inequality and can efficiently counteract any intervention—even one as sweeping as this school-system reform.

Conclusion

This chapter sought to compare the level of inequality in access to education during the increasingly distant past of the old regime and nowadays, over twenty-five years after the system change, when educational reforms have changed the Polish school system in a way unprecedented since World War II. For purposes of comparison, the results of empirical surveys of school careers carried out in the 1980s were contrasted with studies completed after 2000. The analyses demonstrated that over this extended period, the level of social inequality in access to education did not change. In other words, nowadays the parental position determines educational chances to the same extent that it did in the 1960s, 1970s, or 1980s.

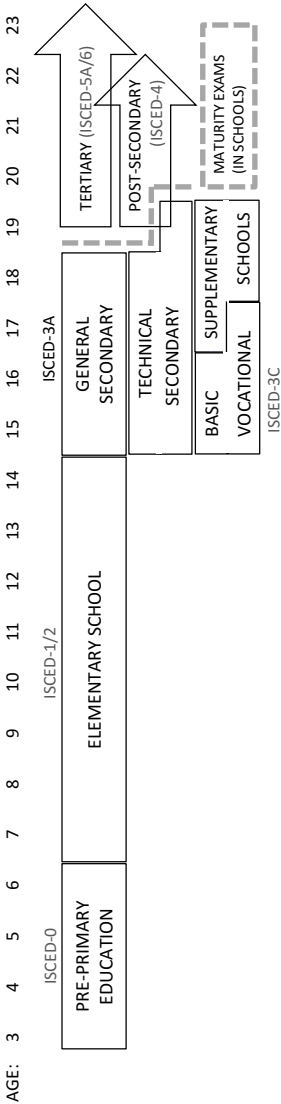
Analysis of the changes in the educational system in Poland during the post-communist transformation allows us to assert that the well-established mechanisms built into the pre-1989 system have been replaced by new mechanisms that appear due to the introduction of tuition in various school

programs and the need for an extracurricular effort—involving financial expenses—to prepare students for competitive external exams. Furthermore, the increasing diversification of middle schools exerts a rising impact on the student's further educational path and—indirectly—on his/her future occupational career. Results of the analyses demonstrated how the mechanisms of intergenerational reproduction of social status swiftly adapt to changes related to the expansion of the educational system, canceling out the effects of school reforms.

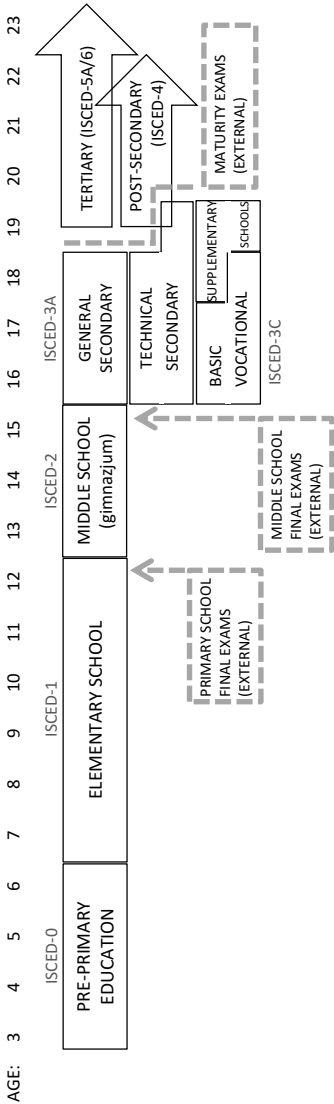
Appendix B

The education system in Poland from 1950

1950-1999



AFTER 2000



For a more detailed description of the current education system in Poland, see Eurydice (2010); for a description of the system before 2000, see Mach and Kryszczuk (2008).

CHAPTER SIX

Determinants of Educational Inequality before and after the System Change

Irina Tomescu-Dubrow and Henryk Domański

All mechanisms of educational selection—whether related to the role of entrance examinations, payment of tuition, or reasons for dropping out—consider the effect of parents’ “capital” on their children’s successfully navigating the school system. This relation is key to stratification research, since education is a main prerequisite for one’s entry into occupational positions: it shapes values, orientations, political preferences, and lifestyle, and it facilitates access to various desired goods, such as income, authority, and prestige.

In the context of the radical social change following the 1989 collapse of socialism and Poland’s move to a market economy, a recurring question is to what extent parental resources continue to impact children’s success in school. Sawiński (in Chapter 5 of this volume) compares survey-based results in 1981–1988 to findings from after the year 2000, showing that the correlation between parental position and children’s educational chances remains substantial and stable through time. The author links this finding to the structural features of the Polish education system, for which he provides an excellent overview spanning the socialist period to the early 21st century.

This chapter complements Sawiński’s by breaking down the overall effect of parental class and of education into effects of given class positions and of levels of educational attainment. We use simple and multinomial logistic regression on data from the 1988–2003 waves of the Polish Panel Survey POLPAN to examine four different outcomes.

The first three refer to pupils' chances of passing certain educational selection thresholds (i.e. successfully transitioning from one education level to the next). This approach stems from the work of Robert Mare (1981), who, on the basis of U.S. data, analyzed the impact of social origin on passing through consecutive school grades (levels) within a uniform hierarchy. It is frequently employed, including for Poland (e.g., Sawiński in Chapter 5). We measure family background in terms of fathers' distinct social class positions and mothers' education levels, to assess their relative effects on children's educational outcomes (for a summary of different operationalizations of social origin in attainment studies, and the types of models they yield, see Tomescu-Dubrow and Domański 2010).

In addition to thinking of educational transitions as binary outcomes (success or failure), we also use a four-category dependent variable that distinguished between Poles who, after secondary schooling, a) became employed in manual occupations, b) became employed in non-manual occupations, c) remained outside the labor market, or d) continued education. In the corresponding multinomial regression models, due to sample size limitations, we use only the father's social class positions to measure social origin (see Data and Methods section). This type of analysis provides insights into the formation of social inequality following unequal educational outcomes and differences in starting occupational trajectories.

Theoretical Considerations and Research Questions

Social stratification studies share the assumption that social origin operates through assets embedded in the family structure, but views of how economic and/or cultural resources pass from one generation to the next are not uniform (for a summary, see Tomescu-Dubrow and Domański 2010). In Poland, research on the relationship between social origin and education often employs fathers' educational and/or occupational characteristics as background measures (Heyns and Białecki 1993; Domański 2004; Domański, Mach, and Przybysz in Chapter 4 of this volume), based on the thesis that the impact of the family is related to its social class position, which can be accurately derived from the socioeconomic characteristics of the father (Goldthorpe 1983, 1984). A common finding is that the social origin-education link is significant and rather stable through time (see also Chapter 4 in this volume).

Models using characteristics of both fathers and mothers yield similar results. For example, Sawiński and Stasińska (1986) studied the association between continuing education and parental characteristics in Poland on cohorts from the end of World War II until the 1980s. They found continuous and rather strong correlations linking the mother's and father's education and occupational affiliation with their children's continuing education. More recent analyses also support this conclusion (see Chapter 5).

We take the view that the impact of social origin on destination operates through the combined characteristics of both parents (Beller 2009; Korupp, Ganzeboom, and van der Lippe 2002; Mare 1981). We use a simple combined effects model with measures for the father's social class and for the mother's level of education.^{1 2}

We follow the Warsaw School approach (see Chapter 2 of this volume) and assume that social classes are distinguished on the basis of certain relations rather than attributes constituting social groups (i.e., aggregates). Ownership of the means of production, control over the work process, and economic resources are constitutive class relationships. Social classes are defined through economic power, which in turn implies specific political and ideological functions in society. As noted earlier, empirical research points to the persistence of ascription-based inequality (i.e., inequality due to social origin characteristics) in educational outcomes both prior to and after 1989. Our task is to examine the processes behind such stability: How exactly do specific social class positions and educational levels of parents help or hinder children's education? Do the same class and educational positions that carried advantages (or disadvantages) during State Socialism continue to do so after the systemic change?

¹ POLPAN 1988–2003 contains information on respondents' mothers' education but not their occupation. Hence, to capture maternal resources, we have to employ education. Since it is not possible to use the father's education and social class and the mother's education in the same model, due to the high correlation of these three measures, and given that the father's and mother's education are even more closely correlated than the father's class and the mother's education, we estimate the effects of parental characteristics in terms of the father's social class and the mother's level of education.

² In a different rendition of these analyses, we have also analyzed the effects of cumulative disadvantage resulting from low educational resources of both parents. In that instance, we used dichotomous measures for fathers' and for mothers' low education (elementary incomplete and complete = 1, else = 0), and their interaction (see Domański and Tomescu-Dubrow 2008).

We examine these issues with respect to three important stages at which educational inequality can occur: (1) the transition from elementary to post-elementary school; (2) completing secondary school, which represents a within-school selection threshold (see Chapter 5); and (3) the transition from secondary to post-secondary school. Given the long-term stability of social origin barriers in progressing through educational levels (cf. Chapter 4 and Chapter 5 in this volume), it follows that the process of inequality may be sustained during secondary school, in terms of unequal chances of successfully completing this level, which in turn impacts opportunities for further education. This expectation is in line with arguments that the advantage of cultural capital of the upper-middle class matters most at the highest levels of education (Bourdieu 1986), implying that the weakening of selection barriers at the first threshold (from elementary to post-elementary school) is counter-balanced by greater inequality later on.

We complement these analyses by addressing a related, yet rarely investigated issue, namely that of alternatives to post-secondary school for pupils who finish secondary education. Specifically, we are interested in how family background impacts Poles' odds of taking up certain types of employment (manual or non-manual), or going into unemployment, versus moving into post-secondary education.

We expect that social classes ranking high on the stratification ladder (in terms of social status and/or income) are willing and financially able to invest in their children's further education. People originating from these classes will be less likely to take up jobs or become jobless after secondary school than to continue their training—compared to their peers from less advantaged family backgrounds, such as the children of technicians and office workers, a class positioned midway in the stratification hierarchy in terms of status and income. Children of disadvantaged class background, such as children of manual workers and farmers, would have weaker prospects of continuing education than would children of technicians or office workers. Instead they would be more likely to be employed in manual jobs, or remain jobless.

Data and Variables

Data come from the 1988–2003 waves of the Polish Panel Survey POLPAN (polpan.org), administered by the Institute of Philosophy and Sociology of the Polish Academy of Sciences, under the leadership of Kazimierz M.

Słomczyński. This is a unique dataset, which allows researchers to monitor changes in the social structure, including those concerning major aspects of inequality and social mobility. POLPAN has been conducted every five years since 1988. The first wave involves a nationally representative random sample of working-age (21- to 65-year-old) adults in Poland ($N = 5,954$). The 1993 wave is based on a sample of 2,500 respondents drawn randomly from the 1988 sample. For 1998, the sample consists of 1,752 men and women aged 31 to 65 and interviewed in both previous waves, and a renewal sample of people aged 21 to 30 ($N = 383$). For 2003, the sample consists of those who took part in the previous waves ($N = 1,474$) as well as those from the younger cohort, aged 21 to 25 in the year of the study ($N = 225$).

VARIABLES

We construct four dependent variables. The first three are dichotomous measures of school selection thresholds. The first captures transition to secondary schooling after completion of elementary education, the second refers to the completion of secondary school by individuals enrolled in secondary school, and the third refers to the transition from secondary to post-secondary school. In all three instances we assign the value “1” to respondents who passed through a given threshold, and “0” to those who failed. Naturally, analyses of the second and third transition will involve restricted samples, since people would have had to enter secondary school in order to have the “option” of completing it, and they would have had to graduate from secondary school to have the “option” of continuing to tertiary.

The fourth dependent variable measures alternative outcomes to continuing education for Poles who finished secondary school. This variable has four categories: (i) respondent assumed employment in manual occupations (farmers and manual workers), (ii) respondent assumed employment in non-manual occupations (managers, specialists, technicians, office workers, and self-employed outside agriculture), (iii) respondent did not assume employment (unemployed and housewives), (iv) respondent continued education (reference category for the first three in multinomial regression).³ It is pos-

³ The situations of the unemployed and the housewife are, of course, different. We consider them together only because there were few housewives and practically no official unemployment before the 1989 system change. We must admit the methodological weakness of such an arrangement, which oversimplifies some conclusions.

sible to construct this measure given POLPAN's detailed occupational history of its respondents. This includes questions about the age at which respondents took their first job, and the nature of this job (see polpan.org).

Generally, we compare social origin effects in 1988 Poland to social origin effects after the system change, up to 2003. However, in the case of the first dependent variable, moving from elementary to post-elementary schooling, our analysis involves the POLPAN 1988 sample only, since after 1989 almost everyone (94.7 percent) successfully made this transition (see Table 6.1).

We differentiate respondents' educational experience gathered during the socialist era from those accrued after the system change based on the timing and the respondents' age at which a given educational transition could occur. Analyses of educational inequality before the system change involve individuals who, any time prior to 1988, had begun secondary school training (for the second transition) or had graduated from secondary schools (the third threshold). For post-communist Poland, we rely on information from POLPAN 1998–2003 respondents who meet the following conditions. Regarding the second threshold (i.e., transition from elementary to secondary school), respondents should have started education at the secondary level and have been at most 16 years old in 1989. With respect to the threshold to post-secondary schools (or alternative outcomes—see multinomial regression), we include Poles who graduated from secondary schools and were not older than 17 years in 1989.

To capture the effects of social origin, we use a set of parental characteristics measured when the respondent was 14 years old. A seven-category social class schema gives information on the father's class position: (1) managers, (2) specialists in non-manual occupations—medical doctors, lawyers, scientists, and other groups identified with professionals and specialists, (3) lower-level non-manual workers—technicians, office workers, salesmen, and other lower-level service workers (this social class is taken as the comparison group in regression analyses), (4) business owners, (5) skilled manual workers, (6) unskilled manual workers, (7) farmers.⁴ Regarding business

⁴ After renouncing the centrally planned economy of socialism in favor of a market economy, Polish society changed substantially in terms of its map of social classes and stratification patterns. Some pre-1989 classes disappeared, while others became full-fledged classes only after 1989 (see Chapter 2). We acknowledge these structural changes but argue that for the purposes of this paper, the seven-category class

owners, we should note that in socialist-era Poland, this class was mainly that of small business from self-employment. It became a full-fledged class after the system change, as Poland underwent economic transformation (see Chapter 2 of this volume).⁵

The mother's educational attainment is measured through a set of dichotomous variables: (1) tertiary education—complete or incomplete, (2) secondary education—complete, (3) secondary education—incomplete, (4) primary education—complete (reference category in regression analysis), and (5) primary education—incomplete. It should be noted that the survey item about the mother's education was introduced in POLPAN 2003. Hence, analyses including this characteristic involve the over-sampling of youth introduced in 2003, as well as respondents interviewed in 2003 and in any of the previous waves (i.e., people for whom we can, retrospectively, "recreate" this information, which is constant through time, i.e., when respondents were 14 years old).

Depending on the format of the dependent variables (dichotomous or multi-categorical), we rely on logistic regression and on multinomial regression, respectively. All models control for basic demographics of respondents, that is, gender (male=1) and age.

Results

FREQUENCIES OF PASSING THROUGH THE THREE SELECTION THRESHOLDS

Educational inequalities materialize when passing through school selection thresholds. Table 6.1 illustrates this process for the period before and after the 1989 system change, via the frequency distributions for having successfully made a given educational transition.

schema, which we employ to measure paternal class effects, captures basic segments of the Polish social structure in 1988, as well as afterward.

⁵ In Poland in the 1980s, business owners existed in the second economy, or in special cases of what were called "Polonia enterprises," legalized in 1976. The term "Polonia enterprises" refers to firms owned by Polish expatriates or foreigners of Polish origin. Most of these firms involved small limited crafts, domestic trade, restaurants, hotels, and other services (Maciejko 1991).

Table 6.1. Percentages of passing through selection thresholds before and after the 1989 systemic change

Selection thresholds	Percent of passing	N (100%)
Before the 1989 system change		
Passing to post-elementary (secondary) school	65.8	5817
Completing secondary school	55.8	3827
Passing to post-secondary school	29.7	2134
After the 1989 system change		
Passing to post-elementary (secondary) school	94.7	244
Completing secondary school	69.1	262
Passing to post-secondary school	30.7	189

We find noticeable change over time. The number of students continuing education increases, with the most vigorous growth occurring with respect to movement from elementary to post-elementary school. The likelihood of success at this threshold rises from 65.8 percent for the socialist era to 94.7 percent in post-communist Poland. The frequency of passing through the second selection threshold (i.e., completing secondary school) also increases, from 55.8 percent to 69.1 percent. Yet little seems to change regarding the likelihood of making the third educational transition, to post-secondary school. The percentages of persons who continued education in post-secondary schools (including colleges and universities) in times before and after the system change were 29.7 and 30.7, respectively.

Empirical research for Poland indicates that greater general efficiency in moving through the education system does not involve a weaker link between social origin and educational attainment (see Chapters 4 and 5 in this volume). We take up this issue to examine how exactly specific social class position and parents' educational level fuel inequality in education.

CHANGES OVER TIME: INTER-CATEGORY DISTANCES AND SELECTION THRESHOLDS

Regression coefficients for the father's class position and the mother's education level presented in Tables 6.2–6.4 reveal the relationships with respondents' educational outcomes before the system change. Tables 5–6 provide,

for the second and third transition only, the corresponding information for post-communist Poland.⁶

We start by analyzing determinants of the first educational transition, from elementary to secondary school, where the transition occurs during the socialist era (see Table 6.2).

Table 6.2. Logistic regression of passing from elementary to post-elementary school before 1988, on father's social class, mother's level of education, and respondents' basic demographics

Independent variables	DV=log(p/p-1)			
	Model I		Model II	
	b	S.E.	b	S.E.
Father's socio-occupational category ^a				
managers	0.034	0.433	-0.987	0.828
professionals and specialists	0.384	0.444	0.164	1.177
business owners	-1.154**	0.258	-0.905	0.603
lower-level non-manual workers (ref.)	0	0	0	0
skilled manual workers	-1.493**	0.212	-1.030*	0.503
unskilled manual workers	-2.369**	0.218	-1.679**	0.513
farmers	-2.590**	0.208	-1.927**	0.491
Mother's education ^b				
tertiary	—	—	ns	ns
secondary	—	—	2.588*	1.033
incomplete secondary	—	—	0.893*	0.403
elementary (ref.)	—	—	0	0
incomplete elementary	—	—	-0.747**	0.165
Gender (male =1)	0.408**	0.068	0.393*	0.154
Age	-0.082**	0.003	-0.066**	0.007
Constant	6.082	0.250	0.393	0.154
Log likelihood	5323.454		1044.999	
Nagelkerke R ²	0.374		0.366	
N	5502		1173	

** $p < 0.01$; * $p < 0.05$; + $p < 0.1$

^a Reference category: lower-level non-manual workers (technicians, office workers, salespeople).

^b Reference category: elementary education.

⁶ As discussed earlier, since 1989 virtually everybody passes the first educational threshold, finishing elementary school and starting secondary education (see Table 1).

The classes of manual workers and farmers face a noticeable social disadvantage; their children are significantly less likely to go to secondary school than children of non-manual workers are.⁷ Social origin does not operate solely through the father's class location. Controlling for this factor, we find significant effects of the mother's education. To illustrate, respondents whose mothers have completed secondary education are 13 times more likely (exponentiating the coefficient, $b = 2.588$) to go to secondary education than respondents whose mothers finished only elementary education, net of the father's social class. On the other hand, respondents whose mothers have less than elementary schooling are 63 percent less likely than the reference group to go to secondary education, all other things being equal.

Under both specifications of social origin, we find that, before 1989, men were more likely to make the first selection threshold than women. According to Model II, men are about one-and-a-half times more likely (exponent of $0.393 = 1.48$) than women to go to secondary school, controlling for their parents' class and education.

For the second and third educational transitions—that of completing secondary school prior to 1988 (Table 6.3) and that of continuing to post-secondary school (Table 6.4), respectively—the relationships between social origin and educational success look similar to those we described above. At first glance it seems that for the third threshold (Table 6.4), what matters more is whether respondents come from social classes placed higher on the stratification ladder (in terms of statistical significance of the coefficients), while having a disadvantaged class background, as compared to belonging to non-manual workers' families (the reference group for the father's class), makes no difference. However, the sample size for Model II (where the coefficients for the disadvantaged classes lose significance) is much smaller than for Model I, which may partially account for this change.

In Table 6.4, Model I, we see that respondents whose mothers completed secondary school, as well as those with tertiary education, are significantly more likely to complete secondary school than respondents whose mothers have elementary school, all other things being equal. Incomplete elementary education no longer differs significantly from elementary education. This

⁷ The coefficients reported in the logistic regression tables are expressed in log-odds. A negative number indicates a negative relation, while a positive number indicates a positive relation. A log-odds coefficient is more easily interpretable after taking its exponent as the odds of the event happening to it not happening.

result makes sense given that, by now, we have “lost” the respondents who did not complete the first threshold (going to secondary school), where the mother’s poor educational resources mattered significantly (Table 6.2, Model II).

Controlling for parental class and educational resources, men are 62 percent less likely than women to finish secondary school (Table 6.3). But for those men who successfully passed this threshold, their odds of successfully completing the next one (i.e., going to post-secondary school, including college and university) are twice that of women.

Table 6.3. Logistic regression of completing secondary school before 1988, on father’s social class, mother’s level of education, and respondents’ basic demographics

Independent variables	DV=log(p/p-1)			
	Model I		Model II	
	b	S.E.	b	S.E.
Father’s socio-occupational category ^a				
managers	0.361	0.310	0.521	0.694
professionals and specialists	0.144	0.247	1.350 ⁺	0.793
business owners	-0.910 ^{**}	0.206	-0.731	0.456
lower-level non-manual workers (ref.)	0	0	0	0
skilled manual workers	-1.412 ^{**}	0.143	-0.888 ^{**}	0.293
unskilled manual workers	-1.739 ^{**}	0.165	-0.986 ^{**}	0.338
farmers	-1.732 ^{**}	0.148	-1.230 ^{**}	0.302
Mother’s education ^b				
tertiary	—	—	2.068 ⁺	1.082
secondary	—	—	1.969 ^{**}	0.427
incomplete secondary	—	—	0.281	0.243
elementary (ref.)	—	—	0	0
incomplete elementary	—	—	-0.119	0.205
Gender (male =1)	0.408 ^{**}	0.068	-0.956 ^{**}	0.157
Age	-0.082 ^{**}	0.003	0.038 ^{**}	0.008
Constant	6.082 ^{**}	0.250	0.069	0.411
Log likelihood	4571.468		974.361	
Nagelkerke R ²	0.144		0.249	
N	3629		846	

^{**} $p < 0.01$; ^{*} $p < 0.05$; ⁺ $p < 0.1$

^a Reference category: lower-level non-manual workers (technicians, office workers, salespeople).

^b Reference category: elementary education.

Table 6.4. Logistic regression of passing from secondary to post-secondary school before 1988, on father's social class, mother's level of education, and respondents' basic demographics

Independent variables	DV=log(p/p-1)			
	Model I		Model II	
	b	S.E.	b	S.E.
Father's socio-occupational category				
managers	0.544*	0.240	0.833	0.505
professionals and specialists	0.982**	0.213	0.988*	0.438
business owners	-0.281	0.237	0.083	0.517
lower-level non-manual workers (ref.)	0	0	0	0
skilled manual workers	-0.528**	0.149	-0.284	0.307
unskilled manual workers	-0.862**	0.221	-0.425	0.414
farmers	-0.757**	0.170	-0.310	0.356
Mother's education				
tertiary	—	—	1.554**	0.609
secondary	—	—	0.705*	0.313
incomplete secondary	—	—	0.403	0.320
elementary (ref.)	—	—	0	0
incomplete elementary	—	—	-0.108	0.308
Gender	0.747**	0.103	0.705**	0.205
Age	0.019**	0.005	0.053**	0.011
Constant	-1.654	—	-3.133	—
Log likelihood	2253.777		569.830	
Nagelkerke R ²	0.122		0.209	
N	2018		496	

** $p < 0.01$; * $p < 0.05$

^a Reference category: lower-level non-manual workers (technicians, office workers, salespeople).

^b Reference category: elementary education.

Next we examine the origin-destination relations for the second and third selection threshold for post-communist Poland. Logistic regression results are presented in Tables 6.5 and 6.6, respectively. Under both specifications of education inequality, we find substantial and statistically significant effects of the father's social class positions and of the mother's education, despite the small number of cases. The smaller sample sizes compared to pre-1988 data are due to the smaller n of the 1998 and 2003 POLPAN waves, and the age restrictions we place to ensure that respondents are exposed to the

possibility of making either of the two transitions after the system change. Clearly, in Table 6.6 we deal only with respondents who already passed the second threshold.

Regarding the odds of completing secondary education, we find that class effects serve primarily to penalize. Respondents whose fathers were unskilled manual workers when the respondent was 14 years old are 90 percent less likely to succeed, compared to those whose fathers were non-manual workers, all other things being equal. The effect of farm background disappears when controlling for the mother's education; this could be due to

Table 6.5. Logistic regression of completing secondary school after 1989, on father's social class, mother's level of education, and respondents' basic demographics

Independent variables	DV=log(p/p-1)			
	Model I		Model II	
	b	S.E.	b	S.E.
Father's socio-occupational category				
managers	0.058	1.210	-1.080	1.349
professionals and specialists	1.409	1.123	ns	ns
business owners	1.250	1.131	0.207	1.263
lower-level non-manual workers (ref.)	0	0	0	0
skilled manual workers	-0.806	0.489	-0.747	0.703
unskilled manual workers	-2.369**	0.762	-2.262*	0.932
farmers	-1.648**	0.574	-1.063	0.810
Mother's education				
tertiary	-	-	3.129**	1.185
secondary	-	-	2.773**	0.682
incomplete secondary	-	-	1.157*	0.495
elementary (ref.)	-	-	0	0
incomplete elementary	-	-	ns	ns
Gender (male =1)	-0.805*	0.319	-0.812*	0.393
Age	-0.103 ⁺	0.060	-0.056	0.129
Constant	4.393	1.596	1.888	3.168
Log likelihood	258.644		172.760	
Nagelkerke R ²	0.204		0.375	
N	237		191	

** $p < 0.01$; * $p < 0.05$; ⁺ $p < 0.1$

^a Reference category: lower-level non-manual workers (technicians, office workers, salespeople).

^b Reference category: elementary education.

the drop in the number of cases and the correlation between social origin variables.

The relative importance of maternal educational resources for passing the second threshold seems greater now than it was before the system change (see Table 6.5, Model II in comparison to Table 6.3, Model II). To illustrate, in the 1990s, people with college/university-educated mothers were almost 23 times more likely to make the second transition than people whose mothers had only elementary schooling, while before 1989, the corresponding number is eight times higher. After the system change, respondents with high-school-educated mothers were 16 times more likely to graduate from secondary school themselves, while before the system change, the corresponding number was seven.

For a successful transition to post-secondary education, we find strong social origin effects, working primarily through class-related advantages. Net of other factors, people whose parents belonged to the social class of professionals and specialists are 17 times more likely to continue to post-secondary school than people whose fathers were lower-level non-manual workers. Children of managers and of business owners enjoy similar advantages. These results, common for Western societies, correspond with the common logic that groups with more resources—whether material and/or cultural—are able to pass some of them down.

The positive effect of belonging to the skilled-manual-workers' families, on the other hand, is not intuitive. According to our data, right after the system change, someone coming from a skilled worker family was 10 times more likely to go to post-secondary school than someone from lower non-manual employee background. This could indicate a weakening of a classic stratification barrier, but a cautious interpretation is warranted.

Finally, we should note that in the 1990s, gender acts consistently: both in terms of finishing secondary school, and in terms of going to post-secondary school, men are significantly less likely to do so than women, net of other factors.

We now have a detailed representation of how social class and educational components embedded in one's family shape the children's educational success to produce the stability of the origin-destination link observed in pre- and post-1989 Poland. Our results confirm, and provide more nuanced information about, this empirical reality uncovered by studies such as Sawiński's (Chapter 5 in this volume). Next, we focus on certain consequences of educational inequality, as reflected in starting points of people's occupational trajectories.

Table 6.6. Logistic regression of passing from secondary to post-secondary school after 1989, on father's social class, mother's level of education, and respondents' basic demographics

Independent variables	DV=log(p/p-1)			
	Model I		Model II	
	b	S.E.	b	S.E.
Father's socio-occupational category				
managers	1.596	1.146	2.633 ⁺	1.485
professionals and specialists	0.722	0.707	2.838 [*]	1.111
business owners	1.149	0.723	2.241 [*]	1.011
lower-level non-manual workers (ref.)	0	0	0	0
skilled manual workers	0.348	0.568	2.301 [*]	0.881
unskilled manual workers	-0.287	1.247	-0.071	1.547
farmers	-0.110	0.774	1.725	1.060
Mother's education				
tertiary	—	—	-0.088	1.139
secondary	—	—	0.305	0.991
incomplete secondary	—	—	0.197	0.969
elementary (ref.)	—	—	0	0
incomplete elementary	—	—	ns	ns
Gender (male =1)	-0.904 [*]	0.374	-1.648 ^{**}	0.535
Age	0.053	0.062	1.078 ^{**}	0.214
Constant	104.577	122.389	-27.200	5.305
Log likelihood	194.417		115.342	
Nagelkerke R ²	0.107		0.475	
N	170		135	

^{**} $p < 0.01$; ^{*} $p < 0.05$; ⁺ $p < 0.1$

^a Reference category: lower-level non-manual workers (technicians, office workers, salespeople).

^b Reference category: elementary education.

ALTERNATIVES TO POST-SECONDARY EDUCATION

We are interested in how family background characteristics impact Poles' likelihood of getting situated in certain segments of the socio-occupational hierarchy as compared to continuing post-secondary education (for people who completed secondary school). We focus on the "relative risk" of either: (i) becoming employed in non-manual occupations, (ii) becoming employed

in manual occupations, or (iii) not becoming employed at all (unemployed and housewives considered jointly), in comparison to (iv) continuing to the level of post-secondary education.⁸

Given the multi-categorical nature of the dependent variable, we employ multinomial logistic regression analysis, first on the data covering the socialist era, and then on those covering Poland in the first 14 years after the system change. We report results (multinomial logistic regression coefficients) in Tables 6.7 and 6.8, respectively. For ease of interpretation, it may be easier to exponentiate the coefficients and then interpret their effects in terms of relative risk ratios.

Table 6.7 shows that, before the end of the socialist era, originating from the social class of professionals and specialists, rather than that of low-level non-manual workers, conferred the lowest risk of taking up any path other than continuing one's education. To illustrate, the relative odds of getting a non-manual job rather than going to post-secondary school is 61 percent lower for respondents whose fathers were professionals and specialists when the respondent was 14 years old than it is for respondents originating from low-level non-manual worker families, all other things being equal.⁹ For this same group, the relative odds is 71 percent lower of getting a manual job rather than continuing schooling, and 57 percent lower of remaining outside the labor market than continuing schooling (all in reference to children of low-level non-manual workers). Respondents originating from the class of managers differ significantly from the reference class only with respect to the relative probability of remaining out of the labor market (they are 48 percent less likely to do so) rather than continuing education.

Meanwhile, the sons and daughters of manual workers and farmers are far more likely than those of low-level non-manual workers to enter any path other than education. The most pronounced effects are for the children of unskilled manual workers, and of farmers. Children of unskilled workers are 125 percent more likely than children of low-level non-manual workers to not have a job (a result that pertains to pre-1989 Poland, when official unemployment did not exist) rather than continue their education. For children of farmers, the corresponding figure is 128 percent. Having a non-skilled manual worker family background means a two-and-a-half-times

⁸ See note 3.

⁹ For ease of interpretation, we exponentiate the coefficients (e^b) and then calculate the relative probability as $|e^b - 1| * 100$.

Table 6.7. Multinomial logistic regression of tracks after completion of secondary education, on father's social class and respondents' basic demographics, POLPAN 1988

Independent variables	Tracks after completing secondary school ^a					
	Post-secondary school (ref.)	Non-manual employment		Manual employment		No employment
		b	S.E.	b	S.E.	
Father's socio-occupational category:						
managers,	0	-0.219	0.329	-0.686	0.427	-0.663**
professionals & specialists	0	-0.954**	0.331	-1.226**	0.399	-0.838*
business owners		0.259	0.329	-0.180	0.419	0.417
lower-level non-manual workers (ref.)	0	0	0	0	0	0
skilled manual workers	0	0.275	0.209	0.934**	0.216	0.446**
unskilled manual	0	0.603*	0.294	1.245*	0.295	0.812**
workers	0	0.617+	0.235	1.000**	0.244	0.825**
farmers						
Gender (male=1)	0	-1.964**	0.176	0.102	0.143	-0.626**
Age	0	0.001	0.006	-0.035**	0.007	-0.024**
Constant	0	-0.056	0.304	0.238	0.311	0.249
Model measurement fit		Log likelihood = -2466.363 LR $\chi^2 = 356.55$ (df = 24) Pseudo $R^2 = 0.067$				
N		1975				

** $p < 0.01$; * $p < 0.05$

^a Reference category for the dependent variable: passing from secondary to post-secondary school.

Table 6.8. Multinomial logistic regression of tracks after having completed secondary education, on father's social class and respondents' basic demographics, POLPAN 1998–2003

Independent variables	Tracks after completing secondary school ^a					
	Post-secondary school (ref.)	Non-manual employment		Manual employment		No employment
		b	S.E.	b	S.E.	
Father's socio-occupational category:						
higher	0	ns	ns	-1.261	2.179	ns
professionals & specialists	0	ns	ns	-1.081	2.147	1.716
business owners	0	ns	ns	-1.486	1.894	-2.379+
lower-level non-manual workers (ref.)	0	ns	ns	0	0	0
skilled manual workers	0	ns	ns	-1.429	1.626	-3.052*
unskilled manual workers	0	ns	ns	0.742	2.067	-1.000
farmers	0	ns	ns	-0.675	1.857	-2.593
Gender	0	ns	ns	1.381	0.818	1.575
Age	0	ns	ns	-0.894*	0.337	-0.674*
Constant				20.885	8.217	17.612
Model measurement fit		Log likelihood = 67.162 LR $\chi^2 = 37.41$ (df = 24) Pseudo $R^2 = 0.219$				
N		73				

+ $p < 0.1$

^a Reference category for the dependent variable: passing from secondary to post-secondary school.

ns Not significant because no cases belonged to this category.

(245 percent) greater odds of getting a manual job than continuing to post-secondary school (compared with people of low-level non-manual family origin). For those of farmer background, the relative odds of getting a manual job rather than continuing education is 172 percent greater than it is for low-level non-manual workers' children.

Results for post-communist Poland are displayed in Table 6.8 for reference, but we do not attempt to interpret them. Due to the very small sample—only 73 cases—most coefficients do not reach statistical significance. The one exception is business owners, with respect to the odds of staying out of the labor market versus continuing post-secondary school.

Conclusion

Until circa 2005, Poland had not experienced considerable change in the extent to which social origin impacts an individual's chances to continue his or her education, despite the sweeping socioeconomic and political transformation that started in 1989. Our research using data from the Polish Panel Survey POLPAN 1988–2003 has brought further empirical support for this finding, which earlier studies uncovered (Sawiński, in Chapter 5). We expected this to happen, and we let accumulated knowledge guide us into detailed analyses of how family resources, expressed through social class and education, shaped specific steps in children's educational careers, both before and after the 1989 system change.

Behind the overall stability of the origin-destination link observed in pre- and post-1989 Poland, we found elements of change. In the 1990s there was a notable increase in the impact of mother's education on the odds that their children would complete secondary school, net of other factors, including the father's class. Certain social class backgrounds—specifically, managers and business owners—exerted a much stronger effect on the likelihood of successfully passing through the third selection threshold (from secondary to post-secondary school) after 1989: children of managers were 13 times more likely to go to post-secondary school, and children of business owners were nine times more likely to go, than children of low-level non-manual workers. Regarding this latter social class, we found that it also significantly impacted the odds of passing the second educational transition (completing secondary school). Finally, in the first decade after the socialist era, children of skilled manual workers were more likely than those of lower-level

non-manual workers to go to post-secondary school education. However, this finding should be interpreted cautiously; it may have been just a temporary fluctuation.

This chapter also explored certain consequences of educational inequality, as reflected in starting points of people's occupational trajectories. Because there were few cases in the analysis for the period after 1989, we limited our interpretation to results obtained for the socialist era. Our general conclusion is that social class background played a major role in creating both educational and occupational inequality well before 1989. Persons originating from unskilled manual workers' families, or from farmers' families, were far more likely than those from low-level non-manual workers' families to take up employment (mainly manual) or even stay out of the labor market altogether than to continue to post-secondary school education. The opposite was true for Poles whose fathers belonged to the social class of professionals: they were far less likely than persons from low-level non-manual worker families to get into any path other than post-secondary school.

It would be revealing to extend analyses of the strength of the origin-destination links and the structure of these relationships to include the POLPAN 2008–2013 waves. First, with larger sample sizes for the post-1989 period, we would better capture the outcomes of interest during the socio-economic and political transformation, as well as after joining the EU. Second, Poland has experienced a series of important events, such as EU accession, joining the Schengen zone, and the 2008 economic crisis, whose effects on the link between ascription and educational achievement warrant further exploration.

PART THREE

Occupational Differentiation

CHAPTER SEVEN

Occupational Classifications and Scales in Poland since the 1970s

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Occupational differentiation is at the core of understanding how people place in the social structure, whether in terms of class membership or with respect to stratification position.¹ In class analyses, basic categories of occupations are aggregated, *via* occupational classifications, into a relatively small number of occupational groups, which inform—oftentimes together with additional sociological criteria pertaining to ownership of the means of production, authority on the job, and qualifications and skills—how a categorical (nominal) measure of social class is constructed.² In stratification research, basic occupational categories are not aggregated; their detailed codes are used to construct a continuous measure (e.g., prestige and socio-economic scales), which assumes that differences between the basic occupational categories can be captured in one dimension, represented by a single parameter (Ganzeboom, De Graaf, and Treiman 1992). This chapter provides an overview of the 2009 Social Classification of Occupations (SCO 2009), which scholars in Poland developed for analyzing sociologically-derived class categories in countries of Central and Eastern Europe. We also discuss quantitative scales based on the SCO scheme.

¹ For the distinction between class and stratification see Chapter 1.

² For a more detailed discussion of the criteria used to construct social class, see Chapter 2.

Theoretical Considerations

Occupational differentiation is a prominent vehicle of modern stratification systems. In a capitalist market, the “job,” which requires specific occupational credentials, becomes the primary source of income, allows for a specific level of consumption, and helps shape the individual’s personality and lifestyle. The market system creates occupational roles identified with the performance of specific tasks, which in turn require specific skills that determine social position. This applies to people currently in the workforce and also to those currently outside the job market, who had an occupation in the past, or expect to gain one in the near future: retirees, the unemployed, homemakers, and students, primarily. Recalling a well-known statement of Duncan (1961a: 116–117), occupation is a variable that mediates between two basic stratification elements—education, and rewards (material, such as earnings, and non-material, like prestige). Education is, to a certain extent at least, a reflection of effort, of peoples’ investments into the skills required for entry into specific occupational roles. Earnings and prestige, on the other hand can be regarded as the rewards people receive for performing occupational tasks. Since occupation is a link between the two, it is central to the individual’s life cycle (see also Blau and Duncan 1967; Siegel 1971; Treiman 1977; Featherman and Hauser 1978).

Blau and Duncan (1967) claimed that, across countries, occupational roles have similar content and are organized according to similar rules. Consistently, cross-national studies reveal substantial associations between education, occupational status, incomes, and other outcomes of occupational roles. Scholars regard this as empirical confirmation that the underlying mechanisms operate similarly worldwide. They appear invariant with respect to economic development, type of political system, and dominant culture (Treiman and Roos 1983; Treiman and Yip 1989; Ganzeboom, Lujikx, and Treiman 1989; Erikson and Goldthorpe 1992; Müller and Gangl 2003; Breen 2004; Müller 2005).

Using Weberian terminology, occupations also create various types of closure through monopolistic control over valued resources. In Marxian terms, some occupational categories, especially manual workers, or owners of the means of production, can serve as the active, collective agents of historical development. In modern capitalist society, the two main exclusionary devices by which occupational categories maintain their privileged position in the

social structure are academic and professional qualifications, and credentials. For example, medical or judiciary associations undertake strategies to secure high salaries and market position (for their members) by establishing a set of legal arrangements such as requirements for specific diplomas or completion of specialty programs administered by appropriate institutions. The declared purpose of these actions is to secure a high level of skills among professionals. Obviously, such strategies are not applicable to low level non-manual occupations or to manual workers. These groups however, also seek means to secure control over important resources, as trade unions illustrate. Typical examples include the routine struggle between organized labor and managers, generally involving bargaining, sit-ins, demonstrations, and strikes. Such collective efforts of occupational categories affect the life chances of their members. Categories using more effective strategies can restrict the access of representatives of the weaker ones to higher earnings, better work conditions, job security, and advancement. The weaker ones, in turn, try to compensate for their smaller market power by applying usurpation strategies (Parkin 1979).

These theoretical insights emphasize the many ways in which occupational divisions impact social inequality and social distances. It is not surprising that occupational data are routinely and widely collected, and that almost any sociological analysis involving a “structural explanation” of social processes and phenomena relies on some type of measure of occupations, generally classifications or scales (or both).

Classifications of Occupations

A classification of occupations is a set of discrete categories—involving a few dozen to a few hundred categories—that identify the respondent’s location in the detailed division of work. It aims to identify basic segments of the social structure, but without predetermining the extent to which the divisions existing between these categories reflect any hierarchical dimension; in this, classifications differ from occupational scales, which are continuous, hierarchical, measures. Classifications facilitate flexibility with respect to analysis, because the detailed codes corresponding to the basic occupational units may be grouped in various ways, depending on a study’s theoretical orientation and purpose.

Classifications of occupations are used for two major purposes. First, they serve as tools for coding information collected in surveys. Interviewers

ask respondents about occupation (their own or others'), either through "open-ended" or "closed" questions. In a closed question, the classification is an integral element of the questionnaire—respondents are asked to specify their place in one of the categories presented on a show card, for example, starting with "professionals" and ending with agricultural laborers or farmers—farm owners. In open-ended questions, which are the preferable way of collecting occupational data, the interviewer (in face-to-face surveys) begins by asking the title of the occupation the respondent performs, then requests a short description of occupational tasks, explores about the position held in the occupational structure, whether the respondent is an enterprise owner (one of the owners) or an employee, and finally, asks what sector (or branch) of the economy the respondent works in. All of these pieces of data are used at in the process of assigning the respondent to one specific occupational category.

Second, occupational classifications serve to operationalize social class (as a nominal variable), generally in combination with additional sociological criteria for defining classes. Here, detailed codes attached to basic occupational units (categories) are highly aggregated, to form, in line with sociological theories of class, a set of entities that will be as different as possible from each other (between-class variation), and internally as homogeneous as possible. Members of these "class" categories have similar access to important societal goods and resources, are similarly located in social networks and have similar life chances (Breen and Rottman 1995; Marshall 1997). How exactly to aggregate occupational codes into categories that validly represent the basic segments of the class structure depends on the features of the society one plans to analyze, but is also a matter of contingency, depending, for example, on the type of classification (sociological vs. non-sociological) available, validity issues, and so on (for a detailed discussion, see Chapter 2 in this volume).

In cross-national research, the International Standard Classification of Occupations (ISCO) is most widely applied, though other socio-economic classifications are also available. ISCO's first version was prepared in 1958 by the International Bureau of Labor; it receives regular updates since.³ ISCO-88, adopted in 1988, became from the start the most common tool for classifying information on occupational structure in Europe (Elias and Birch

³ The most current version of ISCO, ISCO-08, was adopted in 2008. www.ilo.org/public/english/bureau/stat/isco/

2006). Occupational categories are grouped at four levels. The most detailed level involves 390 categories; at the next, these are collapsed into 116 categories. At the third level there are 28 categories, and at the fourth (most aggregated) level, 10. Some of the best known applications of ISCO in international survey projects—of which Poland is part—include the *International Social Survey Program* (ISSP), the *European Social Survey* (ESS), the *Programme for International Student Assessment* (PISA), and studies on social stratification and poverty in post-communist countries (*Social Stratification in Eastern Europe after 1989* and *Poverty, Ethnicity and Gender in Transitional Societies*, carried out in 1993/1994 and 2000, respectively).

As we show in the next section, ISCO strongly influenced occupational classifications in Poland. It did so in two ways. One was to serve as a model for Polish schemes. The other was to prompt class and stratification scholars in Poland to develop new classification tools based on sociological theory and informed by empirical findings, to overcome shortcomings inherent in ISCO.⁴

Classifications of Occupations in Poland

The Polish Central Statistical Office created, in 1970, the first postwar occupational classification for coding the National Census data, *Systematyczny słownik zawodów dla potrzeb Narodowego Spisu Powszechnego 1970* (Systematic Dictionary of Occupations for the 1970 National Census). It was modeled after ISCO-68, and had a four-level structure.⁵ Another classification worth mentioning is *Klasyfikacja zawodów i specjalności* (Classification of Occupations and Specialties) of the Institute of Work and Social Affairs (IPISS 1983), which aimed to unify the terminology and names of occupations used in the educational system, in administration, skill scales, and other documents.

⁴ One limitation comes from ISCO being based mainly on the content of occupational roles and their location in the technical division of labor (rather than on ownership of the means of production, authority, and other sociological criteria). This causes difficulties in using ISCO to identify basic segments of the social structure. For example, it is almost impossible to differentiate car mechanics who own firms from mechanics who are employed.

⁵ The first (most disaggregated) level contained 368 categories; these were grouped into 165 at the third level; the second level contained 47 categories, while the first level aggregated them into nine major groups of occupations (GUS 1970a).

In the mid-1960s, Włodzimierz Wesołowski and his team undertook the first attempt in Poland to create a classification of occupations for sociological needs (see Chapter 1 in this volume). The guiding theoretical idea was that the division of people into occupational categories formed the foundation for social stratification. Researchers classified respondents with respect to their position in the occupational division of labor, by defining 42 narrow occupational categories (see Wesołowski 1970; Słomczyński 1972; Słomczyński, Janicka, and Wesołowski 1994).⁶

Michał Pohoski and Kazimierz M. Słomczyński took this approach further, and in 1974 they developed the Social Classification of Occupations, SCO-74 (Pohoski, Słomczyński, and Milczarek 1974). It contained 367 narrow occupational categories (basic classification units), which formed 75 low-level, 29 medium-level, and 10 major occupational groups. SCO-74 drew directly on the 1970 classification of the Central Statistical Office, CSO, (GUS 1970a, 1970b). However, it employed a significantly different method of clustering narrow occupational categories, which was theoretically justified and also took into account empirical results pertaining to the social stratification structure of the times.

The 1974 Social Classification of Occupations was a breakthrough in the handling of occupation as a variable in Polish social research. Practice in using it led to many discussions about its effectiveness, and eventually prompted authors to create a modified version, SCO-78, in 1978 (Pohoski and Słomczyński 1978). The 1978 Social Classification of Occupations was the first in Poland and one of the first in the world to be considered a sociological classification of occupations.

SOCIAL CLASSIFICATION OF OCCUPATIONS AFTER 1989

The deep socio-economic transformations that Poland underwent after 1989 put pressure on social scientists to modify SCO-78. The question was, how much to modify. On one hand, the substantial alterations of the social divi-

⁶ Creating narrow occupational categories was intended to (a) introduce a fairly simple record of the diverse range of occupations characterizing an urban population; (b) avoid errors that could be introduced by directly assigning respondents to wide socio-occupational categories; (c) allow for different ways of clustering occupations into wider entities, depending on research needs (Słomczyński, Janicka, and Wesołowski 1994, 26).

sion of labor under market economy warranted the consideration to develop an entirely new classification, based on different principles than those underlying the classifications used in state socialist Poland. On the other hand, it was important to have a tool that not only accurately assesses the new realities, but also facilitates comparisons of the post-1989 situation to results obtained using SCO-74 and SCO-78. In addition, even new surveys often-times contain data both on occupations in post-communist Poland, and on pre-1989 ones (e.g., respondent's first job, parents' occupations).

To ensure a balance between the need to be up to date and the need to preserve continuity with the past, scholars decided to modify the "old" SCO-78 classification, while preserving its structure. The process, which incorporated insights gained through the Polish Sociological Classification of Occupations, PSCO-94, a tool prepared specifically for analyzing social stratification in Poland in the early 1990s (see Domański, Sawiński, and Słomczyński 2009, 60–64), culminated with the 2009 Social Classification of Occupations, SCO 2009. Among the most important changes from SCO-78 are the elimination of certain categories (those that occurred only sporadically and those corresponding to occupations that disappeared from the job market), and adding new ones, matching occupational roles that appeared only in recent years.⁷ It should be noted that modifications allowed for maintaining the "old" occupational codes, to secure comparability SCO-78 with the codes and divisions used in the 2009 version.

At the basic classification level, SCO 2009 consists of 283 detailed occupational categories, defined in terms of occupational roles—that is, according to location in occupational division of work rather than according to other criteria included in definitions of sociological variables such as skills and education.⁸ These detailed categories can be aggregated into a smaller number of sociologically meaningful segments of social structure, defined in terms of socio-occupational strata. The 283 basic classification units form 76 low-level, 30 medium-level, and 10 major occupational groups.

⁷ Some modifications aimed at eliminating situations in which the extent of detailed information provided by the respondent would determine the level of placement (higher or lower) of the coding category in the social space. This should prevent the creation of research artifacts, for instance, a spurious intergenerational mobility generated solely by the use of inadequate coding categories.

⁸ Defining basic occupational units in terms of occupational roles eliminates the risk of encountering tautology in multivariate analyses.

While SCO 2009 was built for Poland, it can be used to analyze sociologically-derived class categories in other Central and East European (CEE) countries. Rooted in the historical and cultural context of post-communism, this occupational classification is designed to facilitate research on social class and stratification in CEE, as it can be straightforwardly applied to the European Social Survey, International Social Survey Program, and other international datasets (for computer-aided coding and scaling occupations, see Domański, Sawiński, and Słomczyński 2009, Chapter 6).

From Classifications to Scales

Quantitative occupational scales or indices are hierarchical (continuous) measures of social position. These view individuals as occupying a common position in the social structure defined in terms of graded distinctions between occupational groups. Sociologists interested in ranking occupations have traditionally relied on prestige- or socio-economic-based measures (Duncan 1961a; Siegel 1971; Treiman 1977; Stevens and Featherman 1981). Some are interested in non-prestige and non-socio-economic dimensions of occupational differentiation such as work authority (Wolf and Fligstein 1979), job skill (Spenner 1983), occupational complexity (Parcel and Benefo 1987), and job desirability (Jencks, Perman, and Rainwater 1988).

Continuous approaches to the measurement of social position are represented by the Standard International Occupational Prestige Scale (Treiman 1977) and the International Socio-Economic Index, ISEI (Ganzeboom, Graaf, and Treiman 1992). Scales of socio-economic position were introduced by Duncan (1961b). Duncan's Socio-economic Index (SEI) and its later versions are based on the relationships of occupational prestige, occupational education, and occupational earnings. In constructing SEIs, researchers—following Duncan—regress occupational prestige ratings on occupational education and earnings. The estimated parameters of the regression model for education and earnings are used to calculate predicted prestige scores for each occupational category. Thus, SEI scores are the weighted sum of the two occupational characteristics. Justifying the logic of this composite measure, Duncan (1961a: 116–117) pointed to a particular kind of relationship that links these three variables. Educational attainment is the main channel of recruitment of individuals to occupations (identified on the scale of prestige). At the same time, individuals receive appropriate financial rewards for

performing occupational roles defined in terms of job earnings. Conceptually, SEI measures the attributes of occupation that convert a person's main resource (education) into a person's main reward (income).

POLISH SOCIO-ECONOMIC INDEX (SEI)

The first version of Polish SEI was constructed in the late 1970s. In constructing it, Słomczyński and Kacprowicz (1979) utilized data collected in studies of Polish cities between 1964 and 1967 and repeated on a smaller scale in 1976 (Słomczyński, Janicka, and Wesołowski 1994). For a limited number of narrow occupational categories ($N = 34$) seven variables were determined: (1) monthly income, (2) the prestige score, (3) the index of housing conditions, (4) the index of ownership of durable goods, (5) the score of position in organizational hierarchy, (6) the score of cultural consumption, and (7) the average number of years of schooling. Authors used these variables, expressed as occupational averages, to conduct exploratory factor analysis. In effect, to each of occupational categories a value of SEI was assigned, as a sum of the values of the standardized variables multiplied by their value weights. The resulting index for the 34 occupational categories was called LIM.

When LIM was created, for detailed categories of the full 1978 Social Classification of Occupations, SCO-78, only information on average education and average income was available. LIM was regressed on these two means for the matching SCO-78 categories. Using the resulting equation, Słomczyński and Kacprowicz (1979) computed the values of the index for all SCO-78 categories, SEI-1979. The authors demonstrated the validity of the scale and showed that this index is practically identical ($r > 0.95$) to the index computed in the same way as Duncan's (1961a) SEI. The SCO-2009 contains the Polish SEI-1979 (Domański, Sawiński, and Słomczyński 2009, Appendix 5.2). We will show how SEI-1979 is related to the occupational scales constructed and used thirty years later.

THE SCALE OF SKILL REQUIREMENTS

To construct a scale of skill requirements we utilized scores of general educational development (GED) and specific vocational preparation (SVP), as originally provided in the *Dictionary of Occupational Titles* (US Department of Labor 1965 and later editions). In addition, we took a variable describing the educational level required for a given occupation from the Polish labor

force data (DES) as provided in all materials (Graczyk 1975) and recent *Classification of Occupations of Vocational Training* (Ministry of National Education 2002) and *Classification of Occupations and Specializations* (Ministry of Economy and Work 2004). We applied GED, SVP, and PER to the 2009-SCO.

The correlations among the three variables, GED, SVP, and PER, were subjected to factor analysis to obtain weights for the synthetic scale, the skill-requirements index, ESR. Generally, this scale differentiates occupations with respect to cognitive abilities and achievements for the satisfactory performance of jobs in these occupations. On the highest levels of the scale one finds the positions of high management in the national and local administration and some occupations belonging to the group of professionals—lawyers, medical doctors, architects. On the lowest levels one finds hospital attendants and the domestic help.

THE SCALE OF WORK COMPLEXITY

The basic assumption in the construction of the scale of work complexity is that everything that the workers do while performing their occupational roles can be described in behavioral terms referring to data, people, and things. To describe a given job is, in other words, to point out elementary actions pertaining to processing of information, interpersonal contacts, and physical effort. “Data,” “People,” and “Things” are the labels of three separate dimensions of work description (Wiley 1969, 13–21; Kohn 1969, 1977).

It was pointed out already in the late 1960s that “one of the most fruitful distinctions . . . is the distinction among the work with data, people, and things” (Robinson 1969, 402). This distinction was utilized in the already classical studies of occupation selection (Rosenberg 1957). Currently, it constitutes the foundation of distinguishing occupations in the American *Dictionary of Occupational Titles* (U.S. Department of Labor 1965 and later editions, available also in an electronic version)

The scheme assumes that in each of the three dimensions—data, people, and things—one may distinguish different levels of work complexity. The lowest level of working with *data* is the perception of data requiring a minimal intellectual effort, while the highest level is generating new ideas and presenting them in a novel form. The extremes of the complexity of work with *people* are, on the one hand, taking simple instructions from supervisors or coworkers on what and how should be done and, on the other hand, influencing an individual’s personality by intensive and meaningful interpersonal

contacts. In the dimension of working with *things*, lifting or carrying loads without specialized equipment is considered to be at the lowest level, whereas the highest level is defined by replacing contact with things by the contact with data, or operating by preparing complicated equipment, installing and adjusting tools and setting controls, verifying machine capabilities, and using precision tools and measurement instruments in multifarious work-environment.

In addition, the construction of the scale takes into account the time of working with people, with data, and with things, as well as the overall complexity of work reflecting interaction between different “complexity” variables. Factor analyses based on data from different periods (from 1972 to 2003) show the stability of the overall structure of the construct. Basically, the scale of complexity of work, COM-2009, captures permanent features of occupational differentiation. The highest levels on the scale are represented by occupations in which a high complexity of work with data is combined with high complexity of work with people, as is the case of medical doctors or CEOs. Position in this dimension is the most important one for the value of the general index. The complexity of work scale also differentiates well occupations in which contact with data and people is low. In such occupations, simple clerical type of work (e.g., data entry positions) are lower than many manual occupations (e.g., machine operators).

THE SCALE OF MATERIAL REMUNERATION

This scale is based on two types of information. We use data on the amount of income estimated for the ISCO-88-type of classification by the Central Statistical Office. The data include information on salaries and wages, as well as payments for work done in extra time, payments for supervisory functions, awards and bonuses. According to the first type of data, the average total income in best paid occupations is over five times higher than the mean income in worst paid occupations. This ratio shows that company owners and CEOs are not appropriately represented in the data, since their income would produce much a higher ratio. Thus, for constructing the scale we also use materials from a private company that provides comprehensive data on earnings for a variety of jobs, including employers-entrepreneurs and managerial positions (Sedlak & Sedlak, available on the Internet website www.wynagrodzenia.pl). We adjusted information from all sources to the 2009 Social Classification of Occupations, SCO-2009, to produce a scale of mate-

rial remuneration, MRE-2009. After transformation of the Polish złoty into similar units as in the scale of skill requirements and complexity of work, the scale ranges from 15 to 85 points.

THE SCALE OF OCCUPATIONAL PRESTIGE

The first Polish Scale of Occupational Prestige fitting the *Social Classification of Occupations* was based on experts' evaluations (Słomczyński and Kacprowicz 1979). The experts evaluated job titles using a system of double ranking: in the first stage they divided the set of all 500 occupations into ten groups according to their similarity; in the second stage, they divided each group of 50 occupations into ten more detailed subgroups that were then ordered according to prestige; in the third stage, prestige scores were assigned to each occupation within a subgroup. It has been demonstrated that prestige evaluations of occupations by experts represent those made by the public opinion in general quite well. Chapter 8 discusses Polish surveys on occupational prestige in detail.

Construction of the new prestige scale of occupations, called PRE-2009 was also based on experts' judgments. In the study, 55 experts knowledgeable on job characteristics were selected from such institutions as Centers of Information and Planning Occupational Careers, Central Statistical Office, Ministry of Economy and Work, Center of Trade Unions, and the Institute of Labor and Welfare. This time, each expert ranked around 100 occupations from the set of 500 occupational titles. All experts evaluated approximately the same number of occupations (Bojanowski 2005), which included as a common pool those occupations which general surveys usually contain. The average scores indicate that occupations such as university professor, the higher echelons of management in the state administration, judges of the regional courts, and some artistic occupations—like composers and writers—were at the top positions. Street cleaners, messengers, and gravediggers were at the bottom. The hierarchy is stable over time since the correlation between PRE-1997 and PRE-2009, computed over all the lowest categories of the *Social Classification of Occupations* is $r = 0.917$.

RELATIONSHIPS AMONG OCCUPATIONAL SCALES

Following the classic work of Jackson and Curtis (1968) we treat skill requirements, complexity of work, job income, and occupational prestige as constructs—synthetic variables inferred either from a set of appropriate indica-

tors or from some aggregate measures. The scales of skill requirements (ESR) and complexity of work (COM) reflect *investments* made by individuals in the process of preparing for their occupational roles and while acting in these roles. However, the scales characterize occupational roles rather than the individuals who prepare for, and perform, their specific jobs. In a similar way, the scales of material remuneration (MRE) and occupational prestige (PRE) constitute variables identified as *rewards* received for acting in occupational roles. How do these variables relate to each other?

Table 7.1 provides basic characteristics of the distribution of ESR, COM, MRE, and PRE for 2009, and—for the comparison time—the index of socio-economic status, SEI, for 1979. Table 7.2 shows correlations between these scales. Both tables taken together describe the main properties of the scales that have been important for the development of the multi-indicator measurement of stratification position of individuals in survey research (see Słomczyński, Tomescu-Dubrow, and Dubrow 2015).

Table 7.1. Distributional Characteristics of Scales for Social Classification of Occupations, SCO-2009.

Occupational Scales	Mean	Standard deviation	Skewness	Kurtosis
	basic groups aggregate level			
Socio-economic Index, SEI-1979	40.8	18.6	0.504	−0.842
	39.6	18.4	0.711	−0.552
Skill Requirements ESR-2009	54.3	24.0	−0.121	−1.367
	50.6	23.7	−0.172	−1.266
Complexity of work, COM-2009	51.3	19.7	−0.019	−0.875
	48.9	19.4	−0.030	−0.920
Material Rewards MRE-2009	33.0	15.6	1.742	2.422
	31.7	15.5	1.927	3.052
Occupational Prestige, PRE-2009	44.8	23.4	0.132	−0.891
	42.9	21.6	0.222	−0.904

Basic groups, N = 270, aggregate-level groups N = 60. Some basic groups and aggregate-level groups are omitted since they refer to categories outside of the labor force for which there are missing values on the scales). All correlations are significant at $p < 0.01$. For 70 aggregate-level groups, $F = 39.9$ ($\eta^2 = 0.915$) for SEI-1979, $F = 120.0$ ($\eta^2 = 0.997$) for ESR-2009, $F = 71.3$ ($\eta^2 = 0.951$) for COM-2009, $F = 56.0$ ($\eta^2 = 0.938$) for MRE-2009, and $F = 31.3$ ($\eta^2 = 0.895$) for PRE-2009.

Table 7.2. Correlations of Scales for Social Classification of Occupations, SCO-2009.

Occupational Scales	SEI –1979	ESR –2009	COM –2009	MRE –2009	PRE –2009
	Correlations for basic groups (above diagonal) for aggregate level (below diagonal)				
Socio-economic Index, SEI-1979	1.000 <i>1.000</i>	0.883 –	0.911 –	0.612 –	0.889 –
Skill Requirements ESR-2009	– <i>0.894</i>	1.000 <i>1.000</i>	0.928 –	0.605 –	0.901 –
Complexity of work, COM-2009	– <i>0.938</i>	– <i>0.929</i>	1.000 <i>1.000</i>	0.585 –	0.899 –
Material Rewards MRE-2009	– <i>0.658</i>	– <i>0.660</i>	– <i>0.648</i>	1.000 <i>1.000</i>	0.654 <i>1.000</i>
Occupational Prestige, PRE-2009	– <i>0.932</i>	– <i>0.919</i>	– <i>0.919</i>	– <i>0.677</i>	1.000 <i>1.000</i>

In constructing the scales, the range of values for all scales was theoretically set, for ease of interpretation, from 0 to 100, with the mean value around 50 and the standard deviation around 15. In practice, the range of values is smaller, from around 10 to around 90, and the mean (and standard deviation) diverts from assumed values in the range of +/- 10, mainly due to statistical procedures (for detail, see Domański, Sawiński, and Słomczyński 2009, Chapter 5). For all scales, the standard deviation is around 0.5 of the mean, showing that the dispersion of the respective scales is similar. However, there are substantial differences among scales with respect to their skewness and kurtosis. Skewness of the scales of work complexity (COM), skill requirements (ESR) and prestige (PRE) is small; the distribution of these scales is approximately symmetric. For SEI-1979 and MRE-2009 the skewness is positive, meaning that the right tail of the distribution is longer than the left. Positive kurtosis for MRE-2009 indicates heavy tails and peakedness relative to the normal distribution, whereas negative kurtosis for SEI-1979, ESR-2009, COM-2009, and PRE-2009 indicate light tails and flatness.

In the case of all scales, the mean values and standard deviations are higher for basic occupational groups than for aggregate-level groups. This is

an effect of aggregation. However, due to small differences between results for both levels, we can assume that the scales on aggregate level reflect occupational differentiation well: for the aggregate level, between-group variance is much higher (30 times or more) than within-group variance. The aggregate-level groups explain at least 90% of the variance of each scale, the smallest amount in the case of prestige scale, PRE-2009, and the largest amount in the case of skill requirement scale, ESR-2009.

On the level of basic groups, SEI-1979 correlates strongly ($r \geq 0.883$) with three 2009 scales: those of work complexity, prestige, and skill requirements. Note also that ESR-2009, COM-2009, and PRE-2009 are highly correlated. In comparison with these three scales, the correlation of SEI-1979 with MRE-2009 is much lower ($r = 0.662$), indicating that both variables have less than 40% common variance. This relatively low correlation extends to ESR-2009, COM-2009, and PRE-2009.

The relatively low relationship between SEI-1979 and MRE-2009 partially results from the fact that SEI is, in general, a much more complex measure than MRE. In addition, the time components probably play an important role. The radical systemic change in the period of 1989–1998 produced a fundamental changes in the structure of material rewards on the labor market: the income inequality increased and earnings were adjusted to a balance between demand and supply of the labor rather than the skill requirements and work complexity.

On the aggregate-level groups, the SEI-1979 is best reflected in the occupational prestige scale, PRE-2009. This is partially due to the stability of hierarchy of prestige. In the next chapter, the analyses of public opinion research on occupational prestige demonstrate the extent to which this hierarchy is solid in the long period of time, 1958–2008.

All occupational scales discussed in this chapter capture “goodness” or “general desirability” as reflected in people’s belief about various conditions associated with different occupations (Goldthorpe and Hope 1974, Coxon and Jones 1978). There is a fundamental difference between what is measured by these scales and social classes, for measuring of which occupation is also important. The discrete class schema refers, among other things, to non-vertical variation, essentially ignored by detailed occupational scales. However, for measuring vertical dimension of social stratification these scales are essential.

CHAPTER EIGHT

Changes in Occupational Prestige, 1958–2008

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The concept of occupational prestige was introduced by functionalist theorists in the post-World War II era, in which the economic and social world order was radically transformed. The functionalists were concerned, as Durkheim had been, with social order. They theorized that shared norms glue together the seemingly disparate parts of society and are thus the source of social order. Functionalists needed empirical arguments confirming their theses, and occupational prestige seemed to serve this purpose. There could be nothing more convincing, they argued, than the fact that different societies formed an almost identical hierarchy according to occupational prestige and, moreover, that this hierarchy strongly correlated with rankings of occupations by average education and income (Treiman 1977).

The stability of empirical results over time discouraged most researchers from further research on occupational prestige. The number of studies declined, and after the 1970s, there has been a shortage of data for addressing questions about the stability and change of occupational prestige within nations. Poland, with its 50-year-long period of systematic research on occupational prestige, is a notable exception.¹ We present below a substantially updated version of the major comprehensive inquiries (Pohoski, Słomczyński,

¹ Another exception is the United States, where the national surveys on occupational prestige have been conducted since 1947.

and Milczarek 1974; Domański and Sawiński 1995a), starting with a short history of occupational evaluation studies that began in the interwar period. In our conclusions, we limit discussions to changes occurring in Polish society, since most other countries lack data for long-term comparisons. It is possible that patterns similar to those in Poland would be found elsewhere, especially in other Central and Eastern European countries, if the necessary empirical basis were available for investigation.

Occupational Prestige Studies in Poland since the 1920s

The first empirical study concerning occupational hierarchy in Poland took place between the two world wars (Buławski 1932). Researchers conducted a survey on a small convenience sample, asking respondents to assess a set of occupational groups according to societal importance. Societal importance was understood as a relative share in the “material and spiritual wealth of the nation.” While this criterion did not strictly measure occupational prestige, it did reflect how occupational groups were, on the average, regarded at that time. In the scale developed by Buławski (1932), landowners, capitalists, and managers took the top positions, followed by professional occupations—such as lawyers and medical doctors—and clergy. Office workers, craftsmen, and peasants occupied the mid-level positions, while industrial manual workers, agricultural laborers, and domestic servants were at the bottom of the hierarchy. This “prestige hierarchy” reflects a previously established “aspiration hierarchy of jobs” of high school students regarding their occupational careers (Charszewski 1931). Retrospective studies on social memory, conducted in the 1970s among retirees (Mach and Słomczyński 1975; see Kennedy 1991, 252) and various historical accounts (Żarnowski 1999) replicate the same hierarchy.

In 1958–1987, researchers conducted several social surveys on occupational prestige (Sarapata and Wesołowski 1961; Pohoski, Słomczyński, and Wesołowski 1976; Domański and Sawiński 1995b), and several other such studies have been conducted since then.² All contained a similar question concerning “social prestige,” or esteem. Interviewers provided respondents with a list of occupational titles representing major occupational categories

² See Appendix C.

and asked them a standard question: “What prestige do you associate with [specific occupational title]?” a five-point scale was provided for answers, starting from “very high prestige” and ending with “very low prestige.”³

How do people form images of prestige? Stanisław Ossowski’s *Class Structure in the Social Consciousness* (1963) suggests the process of “synthetic gradation.” He notes the metric incomparability of education, income, and power. However, in his view people are able to proceed with the “synthetization” of gradational attributes—such as education, income, and power—through a *sui generis* psychological process to produce a unidimensional general ranking. Although Ossowski explicitly formulates this thesis in relation to social classes, one could extend it to the social prestige of occupation. Thus we assume that occupational prestige is an expression of “synthetic valuation” of various criteria by which people evaluate slots on the labor market. Of course, the effect of this evaluation could reflect desirability and other characteristics of occupations (Goldthorpe and Hope 1974; see also Coxon and Jones 1978).

Occupational Prestige from 1958 to 1987

We start by presenting results on normalized average scores for 28 occupations based on data from two national surveys conducted in 1975 and 1987 (see Table 8.1). As a supplement of Table 8.1, we also provide data limited to samples of Warsaw for 1958 and rural areas for 1960 with comparable data for 1987 (see Table 8.2). For Table 8.1, respondents’ evaluations were transformed to natural numbers from 0 to 100, by assigning 100 to “very high prestige,” 75 to “high prestige,” 50 to “average prestige,” 25 to “low prestige,” and 0 to “very low prestige.” This linear transformation of prestige ranking does not affect the hierarchy (rank ordering). Neither does the different transformation presented in Table 8.2, which transformed published scores into ranks, with 1 for the highest rank.

³ In surveys conducted in other countries, words such as “social standing,” “social status,” or “social position” were used instead of “prestige.” In Poland “*poważanie społeczne*” is used because, to an ordinary Pole, this term sounds more familiar than “*prestiż*,” although the meaning of both terms is essentially the same.

Table 8.1. Occupational prestige ratings, Poland 1975 and 1987

Occupations ^(e)	Means of normalized ratings ^(a)		Difference of means ^(b) B–A	% of high ratings (c)	Coefficient of variability ^(d)
	1975 A	1987 B		1987	
University professor	90	87	–3	57	0.15
Miner	72	83	+11	45	0.17
Physician	86	82	–4	44	0.18
Factory director	76	79	+3	32	0.18
Teacher	77	79	+2	36	0.19
Government minister	85	78	–7	43	0.24
Journalist	71	71	0	17	0.20
Nurse	62	70	+8	19	0.21
Lawyer–attorney	64	69	+5	17	0.22
Factory engineer	72	69	–3	14	0.20
Priest	69	69	0	25	0.27
Agricultural engineer (agronomist)	69	69	0	14	0.21
Farmer	51	66	+15	18	0.25
Army captain	65	65	0	13	0.24
Director of state farm	61	65	+4	10	0.22
Blacksmith with own workshop	50	64	+14	9	0.22
Skilled lathe turner	56	64	+8	10	0.22
Technician–electrician	55	63	+8	7	0.19

Occupations ^(e)	Means of normalized ratings ^(a)		Difference of means ^(b) B–A	% of high ratings (c)	Coefficient of variability ^(d)
	1975 A	1987 B		1987	
Head of department in office	61	63	+2	9	0.24
Tailor with own workshop	49	62	+13	9	0.22
Truck driver	49	61	+12	10	0.24
Supervisor in a factory	58	60	+2	5	0.22
Salesperson	45	56	+11	8	0.27
Shop owner	45	55	+10	6	0.28
Clerk (office worker)	42	46	+4	2	0.29
Unskilled construction worker	38	44	+6	4	0.36
Secretary in office	41	44	+3	2	0.32
Cleaning person	32	44	+12	4	0.37
Unskilled agricultural laborer ^(f)	34	43	–9	4	0.37
TOTAL	60	65	+5	17	0.38
Spearman correlation	0.946		–	–	–

(a) Original values were transformed into “normalized” ones in the following way: 100 was assigned to “very high prestige,” 75 to “high prestige,” 50 to “average prestige,” 25 to “low prestige,” and 0 to “very low prestige.”

(b) Difference between means for 1987 and 1975.

(c) High ratings includes “very high prestige” and “high prestige.”

(d) Coefficient of variability (V) is the ratio of the standard deviation to the mean.

(e) Occupations are listed according to means of prestige in 1987.

(f) Unskilled agricultural laborer in a state farm.

Table 8.2. Ranking of occupations according to prestige: Adult inhabitants of Warsaw 1958 and 1987 and in rural areas in 1960 and 1987

Occupations (a)	Warsaw		Rural areas	
	1958	1987	1960	1987
	Ranks			
University professor	1	1	1	1
Miner	—	—	7	2
Physician	2	2	4	3
Teacher	3	3	3	4
Government minister	7	4	2	5
Nurse	11	5	—	—
Agricultural engineer (agronomist)	5	6	8	8
Lawyer-attorney	6	7	—	—
Factory engineer	4	9	5	6
Journalist	8	10	—	—
Priest	10	11	6	7
Director of state farm	—	—	14	9
Farmer	15	8	11	11
Skilled lathe turner	9	12	10	14
Blacksmith with own workshop	14	13	15	12
Tailor with own workshop	13	14	16	15
Head of department in office	16	15	11	13
Supervisor in a factory	12	16	12	16
Salesperson	17	17	—	—
Army captain	17	18	9	10
Shop owner	18	19	18	17
Cleaning person	23	20	—	—

Occupations (a)	Warsaw		Rural areas	
	1958	1987	1960	1987
	Ranks			
Secretary in office	20	21	19	21
Unskilled agricultural laborer (b)	24	22	21	20
Unskilled construction worker	22	23	20	18
Clerk (office worker)	19	24	17	19
Spearman correlation	0.905		0.917	

(a) Occupations in order from the highest rank (1) to the lowest (24) in the 1987 Warsaw sample.

(b) Unskilled agricultural laborer on a state farm.

Listed at the top of the hierarchy in all surveys is university professor. Also very high on the list, as in many other countries, is physician, teacher, and factory director. Table 8.1 also reveals that the ranking of miner is very high, and rising and the rankings of skilled lathe turner and truck driver are also rising. This is consistent with earlier observations that skilled manual workers in the communist era enjoyed relatively high positions, higher than in Western European societies and the United States (Wesołowski and Sarapata 1961; Sarapata 1965; see also Słomczyński 1972). However, another hypothesis—also stipulated in earlier studies (Sarapata 1965; see also Słomczyński 1972)—predicting diminishing prestige of the petite bourgeoisie was not confirmed: in the period 1975–1987, a blacksmith with his own workshop and a tailor with his own workshop rose in prestige. Moreover, according to Table 8.1, among all occupations, the position of farmer—in the Polish context, the owner of the farm—increased by the most points.

We also found that, in general, the higher the occupation position, the smaller the differentiation of prestige evaluations. In 1987, the average coefficient of variation for the top five occupations was 0.17, while the one for the bottom five was twice as high (0.34). Evaluations for the top five occupation types were much more consistent than for the bottom five. We will return to the issue of consistency of prestige evaluations at the end of this chapter.

Data from Warsaw and rural areas presented in Table 8.2 confirm a relative invariance of occupational prestige hierarchy between the late 1950s

and the late 1980s. Occupations requiring tertiary education were located at the top of the overall hierarchy, while those of unskilled manual workers appeared at the bottom.

There were some important changes over time. The evaluation of the occupation of national government minister fluctuated. In the Warsaw study, a minister's prestige was much lower than that of a physician or teacher. Later on, in the mid-1970s, it significantly increased, only to fall to the initial level by the 1980s. The prestige of an army captain also fluctuated. The prestige of a priest, both in the urban and the rural environments, fell.

Occupational prestige hierarchies appear very stable, which the correlation analysis confirms. Spearman rank correlation coefficients are very high for all analyses considered (cf. Tables 8.1 and 8.2), as they range from 0.905 to 0.946.

The basic profile of Polish occupational hierarchy in the socialist era did not diverge much from a typical occupational hierarchy in leading capitalist economies. The one significant difference pertains to the occupations of highly skilled industrial manual workers, who in communist-era Poland occupied relatively high positions. While the framework of the prestige hierarchy reveals no change in time, individual occupational positions oscillated. The occupations of national government minister or army officer are good examples here. The existence of a specific "socialist" stratification according to occupational prestige is unclear, as there was only one major departure from the Western capitalist pattern regarding the core elements of the working class.⁴ Yet it also shared features with relevant hierarchies in other socialist countries (Parkin 1979).

Occupational Prestige since 1989

Did the transformation from socialism to capitalism result in significant changes in the rankings of occupational prestige? To answer this question, we compare the hierarchy of occupational positions before the system change with those for 1991–2008. Data for the years 1995, 1999, and 2004 come from surveys conducted by the Public Opinion Research Center (*Centrum*

⁴ For distinctions among manual workers in communist-era Poland, see Chapter 2.

Badania Opinii Społecznej, CBOS), while those for 1991 and 2006 come from surveys conducted by the Institute of Philosophy and Sociology of the Polish Academy of Sciences (IFiS PAN). In 2008 occupational prestige in Poland was the focus of two independent surveys, one by CBOS and the other by IFiS PAN—as an addition to the European Social Survey (ESS) in Poland (for more information on all surveys analyzed in this chapter, see Appendix C). Since the two 2008 studies used slightly different lists of occupations, we were able to assess prestige evaluations for a higher number of occupations and to perform stability analysis of prestige ranking.

Table 8.3 presents average rankings of occupational titles in 1991–2008. The prestige hierarchy changed enough to warrant the interpretation that the socioeconomic and political transformation after 1989 played an important role in determining people's evaluations of occupations. While the early years of the post-communist era did not indicate significant change, some important shifts in positions of occupations are clear if we consider the entire 1991–2008 period.

Table 8.3. Means of occupational prestige ratings, Poland 1991–2008^a

Occupations	Means of normalized ratings						
	1991	1995	1999	2004	2006	2008 IFiS	2008 CBOS
University professor	83	80	81	77	80	79	81
Miner	68	72	66	72	73	62	77
Firefighter	–	–	–	–	–	–	80
Physician	75	75	73	69	76	74	74
Nurse	64	–	65	71	69	67	75
Teacher	70	72	71	70	72	71	73
Bishop	72	–	–	–	–	–	–
Judge	72	71	70	62	–	–	69
Lawyer-attorney	–	–	–	59	–	–	67
Director of firm (CEO)	72	64	64	59	67	68	67

Occupations	Means of normalized ratings						
	1991	1995	1999	2004	2006	2008 IFiS	2008 CBOS
Government minister	77	62	59	48	50	53	54
Member of parliament	—	58	56	41	41	44	45
Member of the local council	—	—	54	—	—	—	53
Governor of a large region (voivodship)	—	—	63	56	—	—	62
Mayor of a medium-sized city	—	—	60	56	—	—	59
Head of local government	—	—	59	—	—	—	58
Political party official	38	46	47	39	—	—	42
Trade unionist in the Solidarity union	42	—	—	—	—	—	—
Owner of a large firm	69	60	62	58	65	67	65
Journalist	63	67	61	65	—	—	65
Engineer—computer analyst	—	—	—	68	67	67	70
Factory engineer	64	66	65	65	67	67	72
Technician—computer specialist	—	—	—	62	—	—	—
Bookkeeper	—	—	—	61	—	—	70
Priest	61	55	55	59	62	61	58
Farmer	58	61	56	67	59	58	69
Army captain	61	66	63	65	66	67	69
Policeman	58	62	61	61	63	61	63
Turner/blacksmith—skilled worker	61	60	58	62	57	58	72

Occupations	Means of normalized ratings						
	1991	1995	1999	2004	2006	2008 IFIS	2008 CBOS
Bricklayer—skilled worker	—	—	—	64	—	—	72
Bus driver	—	—	62	62	61	62	68
Stockbroker	—	53	56	54	—	—	59
Small shop owner	53	52	53	59	56	57	63
Salesperson	—	—	—	61	54	54	63
Tax advisor	—	—	—	56	—	—	—
Insurance agent	—	—	—	52	—	—	—
Clerk	51	51	53	55	53	54	61
Cleaning person	—	—	—	61	52	52	62
Office boy	—	—	—	53	—	—	—
Agricultural laborer	46	—	—	55	—	—	—
Unskilled construction worker	40	46	45	53	50	51	56

^a More detailed information on these research projects is given in Appendix. Normalization of prestige rating is the same as in Table 8.1.

From the beginning of the transformation, professional and specialist occupations retained their top positions. In 1991, the occupation of university professor ranked highest (83 points); physicians, teachers, judges, and engineers were all listed among the first 10 (out of the 22 occupational titles considered). In the newly forming democracy, the prestige of cabinet ministers increased from a mean score of 78, and fifth position in 1987, to a mean score of 77 and second position in the hierarchy in 1991. Director of a firm (CEO) and judge (each 72) were highly esteemed positions. However, the prestige ranking for CEOs oscillated substantially: the score fell from 72 to 59 in the period 1991–2004; after 2004, it rose again, stabilizing at a score of 67. It seems that after joining the European Union, Poles held in higher esteem the skills and responsibility necessary for running a large company.

In 1991, Poles ranked the occupation of bishop equally as high as that of judge and CEO, and much higher than that of ordinary priest. This suggests that high authority positions within the clergy are rewarded with high occupational appreciation in society at large. Unfortunately, we do not have corresponding data for after 1991.

The prestige of skilled manual jobs declined as early as 1991. From 1987 to 1991, the ranking of miners slipped from second to ninth in the hierarchy. Meanwhile, relatively high in the hierarchy—in eighth place (69)—were big business owners, in this case, owners of enterprises with more than 100 employees. Among the general public, the initial approval of the very wealthy quickly changed, so that by 2004, owners of a large businesses placed in the lower half of the prestige hierarchy (58), below small store owners (59) and cleaning persons (61). This result is hard to interpret in the absence of qualitative data. Notably, beginning with 2006, prestige scores for large business owners rose again, stabilizing at 65–67.

The prestige rank of small business owners declined from the beginning, compared to the communist era and contrasted with other occupations. This could be because Poles perceived small business as a continuation of the *petite bourgeoisie* of socialist-era Poland, which did not fit the new reality. In addition, small, low-profile, and often short-lived private initiatives mushroomed in the early 1990s, making them less attractive (Osborn and Słomczyński 2005).

Among those ranked lowest in the socialist era, the fall of communism changed almost nothing. As in the 1980s, Polish society continued to hold in low esteem those occupations requiring low skills and involving little complexity, like construction workers, agricultural laborers, and routine office workers (40–51). In 1991, the position of political activist was at the very bottom of the hierarchy (38), while an employee of the Independent Self-Governing Trade Union “Solidarity” ranked only a little higher (42). Mean prestige estimates confirm the very low esteem given officers in political parties and trade union structures.

After 1991, the occupation of cabinet minister started to fall in prestige. Between 1991 and 1995 it slipped from a mean score of 77 to 62; it reached 59 in 1999, going down to 48–50 between 2004 and 2006. This suggests a decline of political authorities in public standing: the occupation of cabinet minister slipped from the top of the prestige hierarchy to the bottom, to the level of routine office worker, unskilled manual worker, and cleaning person. A lowering of esteem involved all representatives of the ruling class. Members of par-

liament did not fare better. In 2004, on the list of 36 occupations, cabinet minister and parliament deputy were second and third from the bottom. Only the occupation of political party official was still lower. Representatives of regional authorities also ranked low: regional governor was in 25th position, while city mayor was in 27th. The decline in prestige of politicians suggests that the public perceived the political class to have failed at their tasks, and/or resulted from overly high public expectations in the initial phases of the new regime.

Other parts of the hierarchy experienced greater stability, not only across regime types but also over the years since 1991. From 1991 to 2008, the occupations of university professor, medical doctor, teacher, miner, and nurse continued to form the top segment. A little lower was the prestige of the positions of engineer and computer scientist and—since 2006/2008—CEO and judge. This indicates that the highest esteem is still associated with occupations with a perceived high level of education, skills, and knowledge. Perceived public utility as in the areas of education (teacher), security (fireman), and health (nurse) also results in high prestige scores. Particularly striking is the result for the occupation of fireman, which in 2008 was outdistanced only by that of university professor. Poles also hold miners in high esteem, indicating that hard work in a dangerous environment continues to be regarded as valuable.

Factors that Influence the Assessment of Occupational Prestige

What influences respondents' assessments of occupational prestige? To shed light on this empirical question, we examined data from the 2008 study conducted by IFiS PAN. It contains information on evaluations of occupational prestige, as well as on respondents' basic demographics and a rich set of attitudinal variables. Background variables involve all important characteristics of social position, such as age, gender, the size of the place of residence, formal education, current occupation, and household income.

Social demographics seem hardly to correlate with evaluations of occupational prestige. For gender, region, education, and income, no correlation coefficient surpassed the value of 0.15. Age, occupation, and the size of the place of residence surpassed that value for only seven occupations: bus driver, priest, physician, nurse, construction worker, farmer, and salesperson. Older individuals usually ranked the prestige of all occupations generally higher than the young, especially bus driver and priest but also nurse and

physician—occupations on which older people depend more than others do. Place of residence and occupation influences ratings for farmer, salesperson, and construction worker. These occupations were held in higher esteem by persons living in small towns and villages. In the case of farmers, salespersons, or construction workers, people assign higher prestige to those occupations if they actually work in them. However, in the case of the majority of occupations, none of the crucial characteristics of social position exerted any effect on the evaluation of prestige. And even in the case of selected occupations that are related to demographics, their impact is weak.

If social demographics correlate weakly with prestige ratings, it may be that attitudes related to social stratification are more relevant. The 2008 data provided a useful basis for such analysis since they contain many attitudinal questions on stratification-related issues. We took into account all applicable items and correlated them with the prestige of occupations representing three domains, in which the role of specific occupations is frequently debatable: economy (miners), religion (priests), and politics (cabinet ministers and parliamentarians).

MINERS

Earlier Polish studies on the high prestige of miners stressed such attributes as hard work (Domański and Sawiński 1991, 86–87), social utility (Pokropek 2008), and the high esteem that miners have enjoyed for centuries in Silesia (Swadźba 2009). We can add here that among those who rank miners highest are people with strong statist attitudes. Strong statist argue that it is the government's responsibility to provide everyone with a job and health benefits; secure an appropriate standard of living for the elderly and the jobless; provide paid leave to care for sick family; and reduce income inequality. Support for these welfare provisions correlate positively with giving miners high points on the prestige scale. The correlations between each item and the prestige score for miners are between 0.152 and 0.170. Altogether they explain around 6 percent of the variance in miners' prestige.

PRIESTS

The occupation of Catholic priest is highly valued among those for whom religion and the church constitute important spheres of life. Here are correlations:

<i>How religious would you say you are? (Very—high point on scale)</i>	0.405
<i>Attendance of religious services (Often—high point on scale)</i>	0.374
<i>How often do you pray apart from religious services? (Often—high point on scale)</i>	0.336

The higher prestige is assigned to the position of priest, the stronger opposition there is to gay rights and the stronger support there is for traditional family:

<i>Gay men and lesbians should be free to live their own life as they wish</i>	–0.161
<i>Women should be prepared to reduce their paid work for the sake of the family</i>	0.159

It is not surprising that the principles of Catholic morality are reflected in evaluations of the position of priest. It is also obvious that religious practices are related to issues to which the Catholic Church frequently refers. The religious practices and opinions provided above explain one-fifth of the variance in prestige evaluations of priests.

GOVERNMENT MINISTERS AND PARLIAMENTARIANS

In the case of prestige associated with the position of cabinet minister, trust in government institutions overseeing public life is the most decisive factor. Almost as important is the respondent's positive assessment of the state of the economy and the educational and health care systems. Government ministers are responsible for the efficient functioning of government. Thus positive assessments of the current state of the economy and trust in institutions of the democratic state translate into positive prestige evaluations of ministers. In general, the majority of Poles assess these spheres negatively, and trust in the institutions of public life is low (Domański 2009, 142–176).

The occupation of member of parliament, like that of minister, is also assessed based on how well the political system, and, by extension, society at large, functions. Almost 10 percent of variance can be explained through trust in institutions of the democratic state, such as the parliament, the legal system, politicians, and political parties, and through considering the general assessment of the government's work and the assessment of state-run health care. As Pokropek rightly points out (2008, 47), “this is not a tautology; trust

in institutions is not identical with the prestige of their representatives.” In other words, this result should be interpreted as due to the evaluation of the institution the parliamentarian represents.

Prestige Crystallization

Researchers of occupational prestige often focused on the issue of ranking consistency, or prestige crystallization. If opinions regarding the prestige of various occupations are similar, they argued, one can consider them an expression of some society-wide norm. Strong deviations signal a lack of normative consensus.

There are several ways of studying prestige crystallization. One pertains to the extent to which people in general are inclined to compare various occupations according to their prestige. If respondents consider prestige an important criterion for evaluating an occupation, (a) there would be diverse assessments of various occupational roles; (b) they would not shun extreme assessments—very high prestige vs. very low prestige; and (c) there would be a small percentage of those who do not perceive any prestige differences among various occupations.

Table 8.4 presents distribution characteristics of occupational prestige for studies covering the period 1958–2008. Let us first notice that the average estimate barely changed. This means that in spite of quite different circumstances, from the late 1950s to the present, respondents have understood and used the prestige scale in a similar way. The decreasing percentages of the “very high” and “very low” assessments suggest that, over time, the range of prestige estimates has been narrow.

The percentage of respondents who refused to assess occupations according to the criterion of prestige is another indicator. In survey studies, the question about occupational prestige is not preceded by a question on whether the respondent thinks a differentiation in this dimension actually exists. For this reason, we obtained the percentages shown in Table 8.4 in an indirect way—by selecting persons who assessed all occupations as having equal prestige or simply indicated they could not answer this question (they responded, “it is hard to say”). To compute these percentages, we needed access to raw data, which was possible only for some of the surveys.

Numbers in Table 8.4 confirm the weakening importance of prestige in differentiating occupations. In 1967, the percent of those who saw no differ-

Table 8.4. Descriptive characteristics of occupational ratings in seven studies, 1958–2008

Characteristics	Surveys						
	1958	1967	1975	1987	2004	2006	2008
Number of occupations	27	42	30	29	36	22	22
Mean rating	3.5	3.4	3.4	3.6	3.4	3.5	3.5
SD	1.1	1.0	1.0	1.0	0.9	0.9	0.9
Percent of “very high prestige”	21.0	14.9	15.7	17.0	8.7	11.6	12.4
Percent of “very low prestige”	5.5	4.3	4.4	2.6	2.4	2.8	2.9
Percent of respondents who refused or assigned all occupations the same score	—	0.6	—	2.4	3.4	4.9	5.5
Percent of respondents who used all values of the scale (from 1 to 5)	—	55.0	—	27.0	21.0	20.2	18.8
Percent of respondents who, for all occupations, used only neighboring values of the scale (1–2, 2–3, 3–4, or 4–5)	—	0.5	—	3.0	10.3	10.9	11.6
Percent of variance explained by occupations	36.5	32.3	33.6	25.0	12.6	14.9	13.0

Means and standard deviations refer to five-point scales, with 5 assigned to very high prestige, 4—high prestige, 3—average prestige, 2—low prestige, and 1—very low prestige.

ence in occupational prestige did not exceed 1 percent.⁵ In the most recent survey, despite a diverse list of occupations, it amounted to almost 6 percent.

We computed two additional indicators that pertain to the extent of differentiating prestige. In 1967 as much as 55 percent of the respondents used the full range of differences possible by assigning to the occupational prestige

⁵ In this study, respondents were also asked whether occupations differed with respect to the prestige that occupations were “entitled” to. Only three out of 1,000 persons answered, “I respect all occupations identically” (Słomczyński 1972, 108). Analyzing the raw data led to identifying three more persons who assigned the same prestige to all 42 evaluated occupations.

all values from “very high” to “very low.” By the late 1980s, the percentage of such respondents declined considerably, and in the most recent study it was down to around 20 percent. Hence nowadays, only one in five of all respondents consider differences in occupational prestige substantial enough to use the full range of the scale, while in 1967 it was over half of all respondents. The percentage of people who consider small differences in occupational prestige has risen. We counted here respondents who used only the two adjacent scale levels. In 1967 they constituted 0.5 percent of the sample, while in 2008 they made up over 11 percent.

In the last row of Table 8.4, we present the percentage of variance of the whole pool of estimates explained by the overall rating of occupations. This indicator has a special advantage: it can be computed without having access to raw data, since the distributions of estimates, which are usually presented in published studies on occupational prestige, suffice. Because of this convenient feature, we were able to compute its values for all surveys considered in this analysis, including the one conducted in 1958.

Analysis of explained variance reveals that throughout the entire existence of the People’s Republic of Poland, this value was stable and amounted to 30 percent. At the end of this period, it declined. After the system change, occupational prestige became a less important criterion.⁶ Polish society appears less and less eager to ascribe different prestige to different occupational roles. An increasing number of respondents do not differentiate occupations according to the prestige criterion. They narrow the scale of their assessments to a small range instead of using its full scope.

It is worthwhile to dig deeper into this issue by looking at whether these regularities involve only less extensive differentiation of occupational prestige (i.e., a compression of the scale) or also the more frequent appearance

⁶ A question arises: does the decline noted in the percentage of explained variance result from the fact that researchers inquired about fewer occupations in recent surveys? Indeed, fewer occupations could produce less differentiation of assessments. This question was answered on the basis of a 1967 study’s results. There researchers split the list of all 42 occupations into three separate questions (each one dealing with 14 occupations) set in three different places of the questionnaire (Słomczyński 1972). Percentages of explained variance for each of these questions were 28.4, 32.5, and 34.9. These values were close to the value for the full list of 42 occupations presented in Table 8.4. Hence we can assess that the length of the list has no impact on the measure in question.

of differing (and incongruous) prestige hierarchies. To answer this question, we use the method of interpersonal comparisons. It consists of comparing individual prestige hierarchies. For each pair of individuals belonging to the sample, we compute the correlation coefficient between their prestige hierarchies, which is treated as a measure of occupational prestige hierarchy consensus for these two individuals. Average correlation in the set of all pairs can be treated as a measure of consensus for the sample considered (Domański and Sawiński 1991, 162–182). It is worth noting that so far this method has been rarely used (Sawiński and Domański 1991).

Table 8.5 presents the means of inter-person correlations between occupational prestige ratings. Values of the correlation coefficient for 1967, 2004, 2006, and 2008 were calculated from the raw data to which we had access. The value for 1987 comes from Domański and Sawiński (1991, 175) and for 1996 from Domański (1999, 95). Findings strongly support the thesis that in Polish society, consensus in evaluating occupational prestige has declined.

Table 8.5. Means of inter-person correlations between occupational prestige ratings^a

Surveys:	1967	1987	1996	2004	2006	2008
Mean of inter-person correlations	0.383	0.319	0.230	0.182	0.221	0.207

^a More detailed information on these surveys is given in Appendix.

This result raises the question as to why students of social stratification did not notice earlier such a clear decline in consensus about occupational prestige. A lack of appropriate data for analysis seems to be the main reason. Only a few studies focus on the change in occupational prestige assessments. Goyder's (2005) research in Canada is one of the rare examples. It was first conducted in 1975 and again in 2000. The author concluded that the distribution of prestige assessments among occupations became more equal since 1975, since the Gini index dropped from 0.241 to 0.170 (Goyder 2005, 10). Indeed, this may suggest a decline in consensus, but it is not possible to reach this conclusion unequivocally, since only computation of the inter-person correlations could provide decisive evidence.

Conclusion and Discussions

Hierarchies of occupational prestige are very resistant to change, as research on Poland also shows. In the period 1958–2008, the profile of the prestige hierarchy changed very little. Situated on the top positions were always occupations of professionals and specialists. In both 1958 and 2008, the occupation of university professor sits at the top. A little lower, but still very high, is the prestige of the positions of medical doctor, teacher, judge, engineer, and computer scientist. Hence, among the basic determinants of high prestige are high education level, high professional skills, and knowledge. Also important is the perceived public utility of the occupation as connected with fulfilling a social mission and satisfying the basic needs of society in the area of education (teacher), security (fireman), and health (nurse). Poles still highly value the occupation of miner, reflecting the view that hard effort and dangerous work should be rewarded with high compensation. Almost nothing changed in the order at the bottom of the prestige hierarchy. Poles hold in low esteem those occupations requiring no special skills and involving little complexity, such as construction workers, agricultural laborers, and routine office workers.

The most important change in prestige ratings was the radical decline in the esteem of occupations linked with politics and holding high public offices. It started in the late socialist era and accelerated after the system change and particularly affected the occupation of government minister, which fell from the top of the prestige hierarchy to one of its lowest positions. In the 1990s and the decade thereafter, the professions of member of parliament, political party official, regional governor, and city mayor all ranked at the bottom of the occupational prestige hierarchy.

It may seem paradoxical that under the communist system, which the vast majority of Polish society considered illegitimate, the political elite was kept in high esteem, and that this esteem disappeared during the political and economic transformation. There are various ways of interpreting this result. One is to hypothesize that democratization produced the decline in prestige rankings of officials, because it decreased the distance between political rulers and citizenry. The authority that given occupational positions carry is one of the basic determinants of occupational prestige. One can expect that in any political system, the greater the distance between ordinary citizens and their authorities, the higher the prestige of the political elite. Under socialism, the

public had little or no say in the structuring of political power, which was decided by the top echelons of the communist party. While there are many reasons for believing that communism, especially in its later years, had flimsy support and only pragmatic legitimization (it had to exist, therefore people needed to accept it), in the mind of an ordinary citizen, a cabinet minister personified the authority of state power, which was enforced and had to be respected.

Democratization decreased the distance between citizens and the political class by (a) institutionalizing free and fair elections, and (b) ending censorship. Individuals can engage, via voting, in selecting politicians, and politicians hold positions only for the time of their tenure. In the absence of censorship, mass media can freely criticize cabinet ministers, parliamentarians, regional governors, and city mayors, exposing their human weaknesses and weakening the mystique of political power. Both (a) and (b) speak to the inherent ability of democracy to facilitate replacement of political elites. According to the functional theory of stratification, what is more easily replaceable is considered less valuable.

Under a different interpretation, democracy only apparently lowers prestige rankings, insofar as it opens governance to scrutiny by a variety of social actors. Here the possible explanation for why public esteem of political office positions declined after 1989 considers the performance—actual and perceived—of political elites. Following 1989, Poland's government chose the “shock therapy” approach (see Chapter 1) to turn from central planning to a market economy. For many Poles this move brought significant economic hardship, due mainly to rampant unemployment, job insecurity, inflation, and the loss of state-provided welfare. It could be argued that the public, who had very high expectations after the collapse of communism, blamed such stark realities on failed political leadership, which managed to make life even more difficult than it had been during the socialist era. This kind of interpretation would be in line with empirical findings showing that from 1993 to 2003, an increasing number of Poles changed their assessment of the socialist regime from negative or ambivalent to positive (Tomescu-Dubrow 2011). We would then expect that the prestige rank of political office positions should stop declining and start rising once Poland completed the transformation, its economy improved, and the country joined the European Union. Comparing the prestige hierarchies for 1991–2008 indicates that after 2004 there is some upward move in esteem for cabinet minister and member of parliament, though taken as a whole, the mean prestige scores remain low. Qualitative

data on peoples' process of occupational prestige evaluation would be useful here, as would survey data covering the period after 2008.

Another finding worth returning to is the rather low level of consensus in individual prestige assessments, as reflected in the low correlation of individual prestige ratings. A comparison of results for consecutive time cross-sections indicates that the average correlation has declined. Below we present several hypotheses about possible reasons for this phenomenon.

One reason could be the ongoing process of anonymizing occupational roles. In the 1960s, research studies indicated that prestige assessments of occupational roles were directly related to the evaluation of specific individuals who worked in these roles. Discussing one of these studies, Słomczyński (1972, 99) wrote: "respondents often mentioned the name of real persons and, in explaining their choices, said, for instance, 'he is a medical doctor' or 'he is a bricklayer.'" Nowadays, professions such as lawyer, medical doctor, or cabinet minister are less and less frequently considered in personal terms. Someone summoned to court for the first time seeks the assistance of a good lawyer, not necessarily a lawyer they know personally. Surgery is performed by a doctor whose name most patients do not know before they are admitted to the hospital. Employees of an enterprise are bound to follow the rules imposed by a cabinet minister rather than a specific person who acted in this role at the time the rule was signed into law. All such circumstances make occupational roles increasingly impersonal and almost abstract. This is clearest in the case of new occupations carrying a rather general job description, like manager or consultant. Without linking such an occupation to a specific workplace, it may be unclear exactly what this job is. When they have no personal experience to draw upon, people base prestige assessments on what they have heard about the occupation. They also rank the prestige of the occupation based on what they think of the institution that houses the occupation.

Intergenerational changes are another potential cause of decreasing consensus in occupational prestige assessments. Older respondents likely rank occupational prestige according to references from the past, that is, from when they became active in the labor force. For those who enter, or are preparing to enter, the job market nowadays, these references may be outdated, and other criteria may become more important. Existing studies on occupational prestige do not provide adequate information for finding out what such criteria could be. For this purpose, research concerning job aspirations or the perception of possible pathways of occupational careers would be especially informative.

Another hypothesis concerns occupational (career) mobility. Contemporary societies accept a much higher degree of occupational mobility than was the case even 30 years ago. The European Union envisions that the European Qualifications Framework could replace existing school diplomas with a system of international certificates that acknowledge the possession of specific, narrowly defined skills. It is supposed to facilitate occupational change and transfers of workforce between sectors of the European job market while also easing access to occupations that have yet to appear. This can be seen as evidence that education and occupation will cease to determine occupational position for the individual's entire life. Factors such as the employment sector, the character of the workplace, and the lifestyle associated with the job become increasingly important for a person's occupational choices and, perhaps, for the assessment of occupational prestige.

After 1989, occupational mobility in Poland increased instantly. The new socioeconomic system offered many opportunities to leave one's occupation in order to pursue new ones that earlier did not exist or were not socially accepted (Słomczyński 2007, 7–17). Many people took these opportunities, particularly those who were dissatisfied with their salaries or working conditions. Teachers or nurses became store and boutique owners. Medical doctors decided to start working in pharmaceutical companies as sales representatives. Freelance professionals opened their own restaurants.

We also propose what we call the "societal aspirational hypothesis," which is likely specific to former socialist states. The reasoning is as follows. Ideology in the former People's Republic of Poland challenged many traditional elements of social stratification. Propaganda promoted the occupational roles of manual workers (e.g., miners) and degraded those of professionals and specialists by limiting the earnings they could make or through political restrictions, for example, the *nomenklatura* system.⁷ Faced with this situation, people felt the need to maintain some career pathway norms on which they could base their aspirations. Hence in the socialist era, respondents answering questions about occupational prestige presented the visions of a social hierarchy they aspired to, rather than the one they actually experienced. These visions and ideas could have diverse sources, especially one's own experience or what one heard from older family members about the past.

⁷ For more on political segmentation and the *nomenklatura* in Poland, see Chapter 2.

If this aspirational component was actually involved in Polish evaluations of occupational prestige, it should be most visible in the earliest study, carried out in 1958. In later studies the role of this component should decrease, because for younger cohorts the image transmitted by tradition was becoming more and more fuzzy. Aside from other factors, such a mechanism could lead to a gradual decline of consensus in assessments of occupational prestige.

Our empirical analyses could add to discussions on the vanishing of old social structures and the appearance of new ones. This issue is often considered in the context of the vanishing class divisions linked with the job market and ownership relations (Pakulski and Waters 1995). Occupational prestige is an important dimension of social stratification. Decline in the consensus of prestige assessments in Poland could be a reflection of a more general phenomenon—of new determinants of social inequality replacing the old ones. This pertains, in particular, to countries undergoing similar transformations of institutions and values. Still, this is only conjecture. Without analyzing prestige hierarchies for other countries, the issue of declining consensus in prestige evaluations, and its causes, cannot be resolved for Central and Eastern Europe as a whole.

Appendix C

List of studies on occupational prestige in Poland, 1958–2008

Year	Population	Sample	Institution	References
1958	Inhabitants of Warsaw aged 17 and above	753	OBOP ^(a)	Wesłowski and Sarapata 1961
1960	Residents of rural areas	1,426	OBOP ^(a)	Pohoski 1968
1967	Men aged 18–65, head of households in Łódź	1,000	University of Łódź	Ślomożyński 1972
1975	Men and women in Poland aged 16 and above	1,942	OBOP ^(a)	Pohoski et al. 1976
1975	Inhabitants of Warsaw aged 16 and above	599	OBOP ^(a)	Ślomożyński and Kacprowicz 1979
1987	Men aged 18–65 and women 18–60, Poland	1,984	IFIS PAN ^(b)	Ślomożyński et al. 1989
1991	Men and women in Poland aged 16 and above	1,835	IFIS PAN ^(b)	—
1995	Men and women in Poland aged 17 and above	1,154	CBOS ^(c)	Falkowska 1995
1996	Men and women in Poland aged 16 and above		CBOS ^(c)	Roguska 1996
1999	Men and women in Poland aged 16 and above	1,111	CBOS ^(c)	Falkowska 1999
2004	Men and women in Poland aged 16 and above	935	CBOS ^(c)	Domański 1999
2006	Men and women in Poland aged 14 and above	1,721	IFIS PAN ^(b)	—
2008	Men and women in Poland aged 16 and above	1,050	CBOS ^(c)	Felliśiak 2009
2008	Men and women in Poland aged 16 and above	1,619	IFIS PAN ^(b)	—

(a) OBOP—Public Opinion Research Center

(b) IFIS PAN—Institute of Philosophy and Sociology of the Polish Academy of Sciences

(c) CBOS—Public Opinion Research Center

Surveys conducted in 1958, 1960, and 1975 in Warsaw were based on quota samples. All others used random samples.

PART FOUR

Class Analyses

CHAPTER NINE

Class, Stratification, and the 2008 Economic Crisis from an Intersectional Perspective

Irina Tomescu-Dubrow and Joshua K. Dubrow

Introduction

This chapter empirically examines the alignment of social class with stratification in Poland before, during, and after the onset of the global economic crisis of 2008. We make two main points. First, to address the impact of economic events on social phenomena, it is better to treat class and stratification as analytically distinct. Second, introducing intersectionality, specifically the intersection of class and gender, reveals useful information and interesting socioeconomic patterns.

RADICAL SOCIAL CHANGE

In Poland, the end of State Socialism in 1989 fundamentally altered the alignment of class with stratification. In State Socialism, the state allocated people to jobs and decided how much jobs were worth. Afterward, implementation of free-market principles drastically altered how people got jobs and made money. Moving from political segmentation of the socialist labor market (Słomczyński and Lee 1993) to economic segmentation in the post-communist era created new social class categories and changed the level of economic resources these classes acquired.

The global economic crisis of 2008 is another major event that had the impact of a revolution and significant potential to affect the relationship between class and stratification. It resulted from the crash of the U.S. housing market and the density of the economic networks that connect the United

States and Europe. Across Europe, the effects of the crisis were felt objectively, in terms of falling incomes and rising unemployment, and subjectively, in terms of everyday anxiety over how to cope with economic insecurity.

GREEN ISLAND

In 2010, Polish Prime Minister Donald Tusk held a press conference at the Warsaw Stock Exchange (Bartyzel and Espino 2010). Behind him a color-coded map of Europe indicated decline in GDP in red, and in green, growth. Poland stood out in green, an “island” of economic success amid a sea of red countries. Tusk’s press conference came to be known as the “Green Island” speech, a point made in stark terms and striking colors: in the midst of the crisis, Poland was the only European country to post positive economic growth. The government of Poland has since used the term “green island” to promote itself as the last bastion of economic security in Eastern Europe.¹

The Green Island thesis is that the Polish economy, as a whole, withstood the crisis. The government’s promotional materials on this point are free of nuance, leaving scholars to imagine the broader impact of the economic crisis throughout the population. In 2012, scholars from the Institute of Philosophy and Sociology, Polish Academy of Sciences, fielded a special edition of the Polish Panel Survey POLPAN about the twin topics of unemployment and economic insecurity on a sample of the unemployed and economically insecure. One open-ended item in their questionnaire was on the social and political activity of the unemployed. Of her predicament, an unemployed respondent said:²

¹ Poland.gov.pl, which bills itself as the “official promotional website of the Republic of Poland,” published an article titled “Poland Defies Global Crisis.” The article states: “Poland is the only country on the Continent to have confidently withstood the widespread financial and economic crisis that appeared on the horizon in 2008. No wonder global investors are beginning to perceive Poland as a ‘green island’ amid economically challenged states all around.” Finance Minister Jacek Rostowski told reporters after Tusk’s press conference, “We want to be a green island of low debt in a Europe which, unfortunately, may become awash with red ink.” <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aCK1mK0Yd8kw>, accessed January 2014.

² Nonwork interviews, when respondents were asked about the relationship between unemployment and social and political activity. For more information, see polpan.org.

How can I be active? Even me, I have to stay at home, without Internet, without anything, because you would have to pay your bills. Someone who doesn't pay the bills is cut off from the world. One goes to the town, to the constituency office, and the doors are always closed. So why get involved, why get upset? Would this help? No. One should stay at home and look at ads [job offers], one may find something. Or pack your stuff and go abroad, work like a slave 12, 14 hours a day, save a bit, change the Euro into Polish Zloty in a change point. And then our Prime Minister will say, 'Wow, Poles live so well! Green Island!'

This chapter examines the Green Island thesis by going beyond GDP growth to assess how social classes align with economic resources and with feelings of (in)security. We use the European Social Survey (ESS) 2006, 2008, and 2010 rounds to cover the years just before, during, and just after the global crisis, that is, the period when the crisis's effects were most visible. Seismic events have long aftermaths: some economic reverberations likely will continue to be felt across Poland for some time to come. We encourage researchers to take advantage of new data points and check for long-term consequences.

Our analyses rely on a basic premise of intersectionality that people are composed of overlapping demographics and identities—such as class and gender—that impact their structural placement. This leads us to pose the following research question: *Did the 2008 global economic crises affect women and men in Poland differently, based on their social class position?* We are concerned with both objective outcomes, such as per capita household income, and subjective ones, such as feelings of economic insecurity. While we are not the first to introduce intersectionality to the quantitative analysis of survey data (see Dubrow 2008, 2013; McCall 2005), we are the first to explore it with regard to the dynamics of Poland during the economic crisis. We explain our approach and its rationale in detail below.

Class, Stratification, and the Warsaw School

Social classes are groups that control various aspects of, and to a differing extent, social resources that are important for the functioning of the capital market, the labor market, and the consumption market (see Chapter 2). Class relationships, whether at the group or individual level, influence the attitudes,

behaviors, and fortunes of individual class members (see, for example, Chan and Goldthorpe 2007).³

We define and measure social class in line with the tenets of the Warsaw School of studying class and stratification, discussed in detail in Chapter 2. Classes are only partially ordered by their definitional criteria, which implies that their measure is nominal rather than ordinal. This is not to say that classes cannot be ranked—it is possible, using stratification indicators. Stratification position, such as household income, implies social hierarchy. Classes differ, on average, with respect to the level of income, since income is a consequence of control of resources on the capital, labor, and consumption markets. Income, then, is a secondary characteristic of class.

Under this understanding proposed by the Warsaw School, scholars can legitimately investigate the hierarchy of classes according to the external criteria of the extent to which class members participate in the pool of unequally distributed goods. In the statistical sense, individuals belonging to social classes (expressed as a nominal variable) and their stratification position (usually expressed as an interval variable) are interrelated characteristics. The strength of this relation depends on place and time, and is affected by long-term trends and occasional fluctuations.

Beyond the Warsaw School: Intersectionality, Class, and Stratification

Two main elements form the conceptual base of this chapter. The analytical separation of class and stratification is one; intersectionality is the other. We take the Warsaw School approach to class and stratification one step further, to include the concept of intersectionality.

In the social sciences, the idea is commonly accepted that people are composed of multiple, overlapping demographics and identities, including social class, with an explicit relationship with social stratification. This is why almost every article that features quantitative analysis of survey data with

³ We do not take sides in the debate over whether these relationships are characterized by exploitation, some other dominance/subordination process, or even contractual relations (e.g., Wright 2002; Goldthorpe 2000). In our view, in the course of macro-social changes, some class indicators are universal and apply equally well to a diverse set of countries, while others are more country-specific.

individuals as the units of analysis employs regression equations that include gender and some version of social class as the “standard demographics” that capture important social dimensions of human beings. Accounting for demographic dimensions is at the heart of intersectionality, a major topic of feminist and gender studies for almost two decades (Crenshaw 1990; Dahmoon 2011; Davis 2008).

Intersectionality was created and popularized mostly by feminist and gender studies scholars, and their research on inequality (Davis 2008). Many forms of inequality are discussed in this literature, with a focus on how structures of inequality oppress and otherwise impact members of long-standing disadvantaged groups. Out of these discussions came the idea that no disadvantaged category stands on its own: while gender is a major category of inequality, so is social class, and women and men do belong to social classes. Intersectionality is considered a way to reconceptualize the stratification structure.

The meaning of intersectionality is hotly debated (Dahmoon 2011; Hancock 2011; Collins 2015). It is, at times, called a paradigm (Hancock 2007) and something that “references the critical insight” of particular “entities” (Collins 2015, 2). Dahmoon’s (2011, 231–32) survey of the intersectionality literature reveals that even the term “intersectionality” is in dispute: some advocate “interlocking,” while others prefer “multiple jeopardy” or “translocational positionality,” among others. According to Hancock (2011), intersectionality is a paradigm that should go beyond demographics, whereby the “intersections” include the contexts in which groups are embedded. Debates strengthen intersectionality research, but the sheer diversity and, often, opaqueness of the language is daunting, leading some scholars to consciously blur boundaries between conflicting literatures, e.g., in her own work, Dahmoon (2011) uses the term “intersectional-type work.”

While there are various conceptual strands of intersectionality, most definitions of it share three principles. First, individuals belong to multiple demographic groupings, including those of gender and social class. Second, some categories provide advantages and some disadvantages, with each category rooted in the social stratification structure. Third, the intersections of categories influence access to, and acquisition of, scarce and valued resources. Paying close attention to the many varieties of intersectionality, some argue for its relevance in building social and political theory (Choo and Ferree 2010; Hancock 2007, 2011, 2016; McCall 2005), while others comment on methodological issues (Dubrow 2008, 2013; Weldon 2006; Bauer 2014; Else-

Quest and Hyde 2016; Scott and Siltanen 2016). Although the basic idea of intersectionality is commonly accepted, social scientists engaged in quantitative analysis of survey data rarely incorporate intersections of people's demographics explicitly (Dubrow 2013).

CLASS, STRATIFICATION, AND INTERSECTIONALITY

Introducing intersectionality with gender to the analysis of the relationship between class and stratification raises an important issue. Current conceptualizations of intersectionality typically refer to "class" as being part of the stratification structure, while we see the need to differentiate between the two. To resolve this conceptual problem, we draw on research of the Warsaw School and a version of intersectionality promoted by McCall's inter-categorical approach (2005, 1784–1788). This sees value in considering gender as an analytically distinct category that should be studied as a phenomenon in itself, but with a vigilant eye toward its combination with other demographics.

Theoretical Expectations

Our expectations concerning the relationship between class, gender, and stratification borrow from two main theoretical strands: cumulative disadvantage and group-specific disadvantage (for a summary, see Dubrow 2013). Cumulative disadvantage argues that intersectional groups can be ranked according to some stratification scale, such as economic resources, and the groups with the least are at the bottom. This approach assumes an *a priori* conception of disadvantage based on previous empirical observations and is not context-specific. An alternative is to theorize a group-specific disadvantage. In this conception, those with historically marginalized characteristics will have lower economic resources, but because advantages and disadvantages are context-dependent, there is no *a priori* relationship between the kind of disadvantage and the level of economic resources.

In the case of Poland around the time of the global economic crisis, we combine these approaches, noting that women have usually had fewer economic resources than men, i.e., a cumulative disadvantage. Yet women from some class positions will have better access to stratification resources than men from classes that traditionally rank lower on stratification scales, i.e., have a group-specific disadvantage. Hence we expect that:

- (i) Social classes with little property, low control over labor power, a lower level of skills needed to perform their occupational tasks, and limited life chances will have lower levels of economic resources before, during, and after the economic crisis, a deleterious condition that we would expect to increase during and after the economic crisis; over time, more members of these classes will feel economically insecure;
- (ii) Women have lower levels of economic resources and a greater probability of feeling economic insecurity; these conditions will worsen over time, and more and more women will feel these problems;
- (iii) According to cumulative disadvantage theory, over time, women in any social class will have lower levels of economic resources and a greater probability of feeling economic insecurity;
- (iv) According to group-specific disadvantage theory, women from classes with more property, control over labor power, a higher level of occupational skills, and better life chances will have better economic conditions and be less likely to feel economically insecure than men with little property, low control over labor power, a lower level of occupational skills, and limited life chances.

Methodology

DATA

Data come from the European Social Survey (ESS), a cross-national, cross-sectional data set with individuals as the units of analysis. ESS is fielded once every two years to nationally representative samples. We use the 2006, 2008, and 2010 rounds for Poland. As is typical of survey projects, the number of cases in Poland per round is approximately 1,500.

VARIABLES

The main problem with measuring intersectionality with survey data is that the more intersections included in the model, the fewer cases that vary across the response variable. This leads to sample sizes too small to build intersections with enough variability (for a brief overview of this problem, see

Dubrow 2013). There is no preset definition of sample size that is needed to construct intersections: this is determined by the variables created and the statistical procedures used.⁴

To resolve the “small number of cases” problem, in this chapter we limited our intersections to class and gender, and we created five pooled social classes from the Erikson-Goldthorpe-Portocarero EGP schema (Erikson, Goldthorpe, and Portocarero 1979):⁵ (1) managers and professionals, (2) lower non-manual workers, (3) self-employed, (4) skilled and unskilled manual workers, and (5) farmers and farm laborers. For analyses of percentages we included manual supervisors; the number of cases is too small to include them in the multivariate regression. In ESS, the EGP schema can be constructed using ISCO codes, from “legislators, senior government officials” (code 1110) to “transport laborers and freight handlers” (code 9330).

We measured social stratification in terms of Poles’ objective conditions and subjective experiences. The objective measure is household income per capita in deciles: the highest income deciles are at the top (indicating privileged conditions), and the lowest are at the bottom (indicating disadvantaged conditions).

The subjective measure is whether the respondent feels it is difficult to live on his/her current household income. The ESS survey item is, “Which of the descriptions on this card comes closest to how you feel about your household’s income nowadays?” with four response categories: (1) Living comfortably on present income, (2) Coping on present income, (3) Finding it difficult on present income, and (4) Finding it very difficult on present income.

⁴ To create a sufficient sample size from such surveys, there are five main options: a) Limit the number of intersections (say, only gender and social class) and the content of intersections, i.e., create only those that are of sufficient size; b) When analyzing social class, meaningfully combine class categories, i.e., “pool classes”; c) Pool countries within one survey wave, i.e., “pool countries”; d) Pool the same country across multiple survey waves, i.e., “pool time”; e) Harmonize different datasets of the same country, i.e., “pool survey projects.” Each option has its own issues regarding comparability of data. See Dubrow (2008, 2013) for more methodological discussion, including on choosing demographics for intersections.

⁵ The EGP schema accounts for key differences between owners and managers, self-employment and number of employees, level of supervision at work, to create 11 different class categories: I) higher controllers; II) lower controllers; IIIa) routine non-manuals; IIIb) lower sales-service; IVa) self-employed with employees; IVb) self-employed with no employees; V) manual supervisors; VI) skilled workers; VIIa) unskilled workers; VIIb) farm laborers; and IVc) self-employed farmers.

We aggregated these last two categories into one, “Feel it is difficult to live on household income nowadays” = 1, and coded the others as zero. We interpret this variable as a feeling of economic insecurity. The response category, “Don’t know,” was treated as missing case.

MULTIVARIATE REGRESSION MODELS

In studying the influence of demographic variables on attitudes and behavior, there are two major approaches. The first is to model the outcome of interest as a function (linear or otherwise, e.g., logit) of given independent variables that are individually added to the equation. The main theoretical assumptions of this approach, which most intersectionality researchers employ, are that (a) demographic categories have social properties that are distinct from each other, and (b) each separate category could add to better prediction of the dependent variable (Bauer 2014; Hancock 2007; Weldon 2006). It is assumed that demographic variables have additive effects. For example, $Y(\text{income}) = a + b_1 * \text{gender} + b_2 * \text{education} + b_3 * \text{occupation} + e$.

A second option, which we used in our analyses, is to model the influence of demographics on a social outcome *conditional* on the intersections of the demographic categories. This calls for interaction terms of categories that identify demographic groups. Under this specification, the model described earlier would be written as $Y(\text{income}) = a + b_1 * \text{gender} + b_2 * \text{education} + b_3 * \text{occupation} + b_4 * \text{interaction}(\text{gender, education, occupation}) + e$. The constituent elements of intersections are there to provide context for the intersections themselves (Weldon 2006). Most analyses of the influence of demographics on attitudes and behavior focus on the additive effect of categories, while intersectionality focuses on the group comparisons and the effects of interactions above and beyond the effects of its components.

Results

Table 9.1 presents statistics on objective stratification conditions, i.e., household income per capita, across social classes in Poland for 2006, 2008, and 2010. Managers and professionals are at the top of the class structure, and the gap is especially large between them and manual workers of any kind, and farmers. As Table 9.1 shows, the economic crisis affected some classes more than others. Although the overall mean per decile of household income per

capita for Poland changes very little in the 2006–2010 period, this is due to certain groups, particularly farmers and farm laborers, losing much more following the crisis than other classes did. In short, the objective conditions of managers and professionals remained the same, while those of farmers grew steadily worse.

Table 9.2 presents, for 2006, 2008, and 2010, statistics on subjective stratification conditions—that is, feeling that it is difficult to live on one's current household income—that vary by class, gender, and their intersections. During this time, close to a third of Poland felt economically insecure. The subjective experience of stratification differed wildly across the class structure: in line with general expectations, managers and professionals were less likely than any other class to feel difficulty in coping with their current household income. As the economic crisis wore on (2008 to 2010), their subjective experience actually improved. Meanwhile, more and more farmers and farm laborers felt economic insecurity. Two years after the onset of the crisis, 15 percent of managers and professionals felt economically insecure, which is

Table 9.1. Class and stratification outcomes: Objective conditions (mean decile of household income per capita) for 2006, 2008, and 2010

	2006		2008		2010	
	Mean (SD)	<i>n</i>	Mean (SD)	<i>n</i>	Mean (SD)	<i>n</i>
Managers and professionals	7.15 (2.36)	298	7.16 (2.52)	346	7.12 (2.51)	411
Lower non-manual workers	5.86 (2.62)	199	5.44 (2.82)	187	5.56 (2.79)	205
Self-employed	6.02 (2.92)	62	6.07 (2.64)	77	6.01 (2.87)	79
Manual supervisors	5.62 (2.55)	52	6.84 (2.38)	25	5.47 (2.88)	17
Skilled and unskilled manual workers	5.12 (2.72)	460	4.98 (2.74)	393	4.92 (2.71)	399
Farmers and farm laborers	5.11 (2.77)	146	3.92 (2.53)	141	3.82 (2.65)	90
All classes	5.85 (2.76)	1231	5.70 (2.86)	1180	5.78 (2.87)	1203

**Table 9.2. Class and gender, and stratification outcomes:
Subjective experience (percent who feel it is difficult to live on present
household income) for 2006, 2008, and 2010**

	2006		2008		2010	
	%	Total <i>n</i>	%	Total <i>n</i>	%	Total <i>n</i>
Managers and professionals	21.41	355	15.27	419	14.62	520
Men	18.63	161	11.48	183	9.12	241
Women	23.71	194	18.22**	236	19.35**	279
Lower non-manual workers	31.98	247	27.48	222	28.06	253
Men	33.33	36	22.86	35	11.62	43
Women	31.75	211	28.34	187	31.43	210
Self-employed	18.60	86	15.31	98	14.16	113
Men	17.86	56	16.13	62	10.96	73
Women	20.00	30	13.89	36	20.00*	40
Manual supervisors	39.62	53	41.38	29	27.78	18
Men	38.63	44	43.48	23	33.33	15
Women	44.44	9	33.33	6	0	3
Skilled and unskilled manual workers	46.74	552	38.36	464	40.24	502
Men	41.34	329	32.29	288	37.39	313
Women	54.71**	223	48.30**	176	44.97**	189
Farmers and farm laborers	48.59	177	47.06	170	55.75	113
Men	41.90	74	50.63	79	48.27	58
Women	53.40*	103	43.96	91	63.64**	55
All respondents, all classes	36.31	1487	29.17	1416	28.50	1523
Only men, all classes	32.96	810	26.22	759	24.61	825
Only women, all classes	37.49	899	32.04	849	32.07	898

NB: Difference between women and men is * $p \leq 0.10$; ** $p < 0.05$.

almost twice as high as for lower non-manual workers; 40 percent of skilled and unskilled manual workers felt economically insecure in 2010, and 55 percent of farmers and farm laborers did.

Accounting for intersectionality reveals stark differences between men and women within social classes in terms of their subjective stratification experiences. At the onset of the crisis and after, women from the managerial and professional class felt significantly worse about their economic situation

than men. In 2010, self-employed Polish women were twice as likely as men to feel economically insecure. Skilled or unskilled female manual workers were significantly more likely than men to feel economically insecure about their household income before the economic crisis, and remained so during and after it. Two years after the crisis, almost two-thirds of women who were farmers and farm laborers felt this way.

Table 9.3 presents multivariate regression analysis of objective stratification conditions on the intersection of gender and class. The reference category for the social class measures is the group of managers and professionals. In 2006, managers and professionals who were men, had 15 years of education and were 35 years old would rank in the seventh percentile of the income distribution (predicted $Y = 3.58 + 0.9 + 3.32 = 7.8$). For women with the same class, education, and age characteristics, there is no statistically significant difference with regard to their location in the income distribution as measured here.

The intersection of being female and a farmer or farm laborer has a strong negative effect on the deciles rank distribution of household income per capita. Female farmers were almost one decile position lower ($-1.043 + 0.154 = -0.89$) than those in the reference group, all other things being equal. The negative cumulative effect of being female and a farmer became much more pronounced with the onset of the economic crisis in 2008. All other things being equal, female farmers and farm laborers lost 2.6 percentile points on the income distribution in 2008, and 3.7 percentile points in 2010, compared to women managers and professionals (compared to males, the corresponding numbers are 2.4 for 2008 and 3.4 for 2010).

With 2008, we also see the interaction effect of being female and working class reaching statistical significance, above and beyond education and age. Compared to men and women managers and professionals, female workers lost 1.3 and 1.5 percentile points respectively, on the income decile distribution, controlling for education and age. As is the case for female farmers, this loss was even more pronounced in 2010. It is worth noting the decreasing impact of education through time. While in 2006, women would gain 2.2 percentile points for 10 years of education, in 2010, the relative effect of education is only 1.1 percentile points.

Table 9.4 presents logistic regression of the subjective stratification experience on the intersection of gender and class. The reference category for the social class measure is the group of managers and professionals. In 2006, all other things being equal, being women and belonging to the social class of

Table 9.3. Linear regression of household income/capita (deciles, 1 = poorest; 10 = richest) on intersection of gender and class, and other selected variables: ESS Poland, 2006, 2008, and 2010

Independent variables	2006				2008				2010			
	B	SE	Beta		B	SE	Beta		B	SE	Beta	
Gender (female = 1, F)	0.154	0.275	0.028		0.230	0.261	0.040		0.351	0.249	0.061	
Lower non-manual workers (B)	-0.095	0.556	-0.013		-0.327	0.531	-0.042		-1.293**	0.495	-0.170	
Self-employed (C)	-0.365	0.436	-0.030		0.000	0.423	0.000		-0.281	0.417	-0.024	
Skilled and unskilled manual workers (D)	-0.770**	0.248	-0.136		-0.790**	0.257	-0.131		-1.301**	0.246	-0.214	
Farmers and farm laborers (E)	0.000	0.000	-0.021		0.000	0.000	0.048		-0.001+	0.000	-0.045	
F*B	-0.543	0.621	-0.070		-0.548	0.600	-0.066		0.119	0.568	0.015	
F*C	0.141	0.747	0.007		-0.511	0.673	-0.028		-0.926	0.665	-0.051	
F*D	-0.413	0.372	-0.054		-0.660+	0.381	-0.079		-0.793*	0.374	-0.091	
F*E	-1.043**	0.388	-0.097		-2.619**	0.370	-0.228		-3.726**	0.471	-0.237	
Education (years)	0.221**	0.031	0.270		0.149**	0.021	0.223		0.094**	0.019	0.154	
Age	0.056**	0.005	0.341		0.039**	0.005	0.239		0.026**	0.005	0.159	
Constant	3.583	0.444			4.252	0.350			5.231	0.320		
Fit statistics	F = 19.06 (df = 11) Adj. R ² = 0.145				F = 20.31 (df = 11) Adj. R ² = 0.155				F = 19.16 (df = 11) Adj. R ² = 0.144			
	N = 1169				N = 1154				N = 1186			

** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Managers and professionals = reference group; we excluded manual supervisors from this analysis, as there were very few women in this social class.

farmers and farm laborers increased the odds of finding it difficult to live on current income (as opposed to coping or finding it easy) by 76 percent compared to women managers and professionals, and by 99.7 percent ($\text{Exp(b) gender } 1.132 * \text{Exp(b) F*E1.765}$) compared to male managers and professionals.

In 2008, at the onset of the economic crisis, we found no solid gender and/or class effects on how Poles felt about making ends meet on their current income. In 2010, the negative cumulative effect of being female and farm became significant again and was much more pronounced than in 2006. Holding education and age constant, women farmers and farm laborers were almost four times more likely than women managers and professionals to say they find it difficult to live on their current income. Compared to male managers and professionals, women farmers and farm laborers were five times more likely ($\text{Exp(b) gender } 1.363 * \text{Exp(b) F*E3.88}$) to say they find it difficult to live on their current income, all other things being equal.

Table 9.4. Logistic regression of “finding it difficult to live on current income” on intersection of gender and class and other selected variables: ESS Poland, 2006, 2008, and 2010

	2006		2008		2010	
	B (SE)	Exp(B)	B (SE)	Exp(B)	B (SE)	Exp(B)
Gender (female =1, F)	0.125 (0.234)	1.132	0.121 (0.239)	1.129	0.310 (0.222)	1.363
Lower non-manual workers (B)	0.512 (0.393)	1.668	0.034 (0.447)	1.034	-0.243 (0.510)	0.785
Self-employed (C)	-0.459 (0.385)	0.632	-0.398 (0.392)	0.672	-0.384 (0.411)	0.681
Skilled and unskilled manual workers (D)	0.596** (0.197)	1.816	0.204 (0.211)	1.227	1.026** (0.206)	2.789
Farmers and farm laborers (E)	0.000 (0.000)	1.000	0.000 (0.000)	1.000	0.001 (0.003)	1.001
F*B	-0.306 (0.454)	0.736	0.175 (0.510)	1.190	0.765 (0.555)	2.149

	2006		2008		2010	
	B (SE)	Exp(B)	B (SE)	Exp(B)	B (SE)	Exp(B)
F*C	0.025 (0.628)	1.025	-0.313 (0.653)	0.731	0.304 (0.593)	1.355
F*D	0.223 (0.298)	1.249	0.263 (0.319)	1.301	-0.176 (0.296)	0.839
F*E	0.568+ (0.297)	1.765	0.087 (0.313)	1.091	1.357** (0.345)	3.886
Education (years)	-0.103** (0.025)	0.902	-0.172** (0.025)	0.842	-0.041* (0.018)	0.960
Age	0.011** (0.004)	1.012	0.015** (0.004)	1.015	0.024** (0.004)	1.024
Constant	-0.339 (0.474)		0.244 (0.474)		-2.213 (0.397)	
<i>Fit statistics</i>	<i>LR chi2 = 143.45</i> <i>(df = 11)</i> <i>Pseudo R2 = 0.08</i> <i>Log likelihood = -858.06</i> <i>N = 1155</i>		<i>LR chi2 = 181.73</i> <i>(df = 11)</i> <i>Pseudo R2 = 0.11</i> <i>Log likelihood = -742.87</i> <i>N = 1386</i>		<i>LR chi2 = 188.04</i> <i>(df = 11)</i> <i>Pseudo R2 = 0.10</i> <i>Log likelihood = -805.46</i> <i>N = 1505</i>	

** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Managers and professionals = reference group; we excluded manual supervisors from this analysis, as there were very few women in this social class.

Conclusion

The data patterns can be interpreted in a number of ways. One interpretation is that, for the most part, between 2006 and 2010 there are few differences between men and women within the class structure. It seems that even two years after the onset of the economic crisis, much of the class structure—unequal as it was with respect to household income and perceptions of economic insecurity—remained relatively intact. Prime Minister Tusk's "Green Island" declaration was not entirely off the mark: as of 2010, there was no major realignment of class and stratification in Poland despite the

worst global economic crisis since the Great Depression of the 1930s. Certain classes retained their privilege and others their disadvantage.

Another way is to reinterpret these results by combining insights from the Warsaw School with intersectionality. Two years after the crisis, compared to men, women manual workers and farmers began to be significantly worse off in terms of both economic conditions and feeling economically insecure. While there is evidence, then, for cumulative disadvantage, disadvantage itself is context-dependent. Women in social classes with higher average earning power did significantly better than either men or women from classes with lower earning power.

Combining the Warsaw School with intersectionality shows a complex relationship between gender, class, and stratification in Poland at the onset of, and well into, the global economic crisis. If we took the Warsaw School or intersectional approach separately, we would see that some men did well during the crisis, as well as some women. We combined the approaches to reveal another pattern, one in which women from particular class categories were objectively disadvantaged and more likely to feel economically insecure. The sun of economic fortune shined on some, but not all, of the inhabitants of Green Island.

CHAPTER TEN

Class Voting in Poland, 1991–2011

Dariusz Przybysz

Studies of voting behavior in democracies have considered the influence of characteristics of voters, including social class (Clark and Lipset 1991; Evans 1999; Goldthorpe 1999; see also Słomczyński and Dubrow 2010). Class is considered a vital characteristic of an individual's position in the social structure because of its relationship to many other dimensions of stratification, such as education, income, and lifestyle (Domański 2009). If political parties are said to represent interests of various social groups, class should significantly influence voting behavior (Clark and Lipset 1991). Analyses of voting behavior in Poland have considered the impact of voter characteristics, including social class (e.g., Cześnik 2002, 2003, 2007, 2009; Bartkowski, Cześnik, and Kotnarowski 2011; Domański 2008, 2009; Domański, Pokropek, and Żółtak 2015; Grabowska 1999; Grzelak and Markowski 1999; Jasiewicz 1999; Korzeniowski 1999; Markowski 1992, 1993, 2002, 2006; Raciborski 1997, 2002; Wasilewski, Kopczyński, and Szczur 1999; Szawiel 1999).

In this chapter we explore the dynamic relationship between class, the decision to vote, and political preferences in Poland from 1991 to 2011. We ask: *Over the last two decades, to what extent has class influenced voting decisions?* We want to know: (a) How has the relationship between class and decision to vote changed over time? (b) How much does class and education separately influence political preferences? (c) How has the strength of the relationship between class and voting changed since the first elections after the democratic and capitalist revolution? In focusing on parliamentary

elections in Poland from 1991 to 2011, we use data from the Polish General Social Survey and the European Social Survey. We employ log-linear and log-multiplicative modeling, which have become standard in the analysis of class voting (Evans 1999; Weakliem and Heath 1999a and 1999b; Domański 2008).

Hypotheses

Since the 1950s, Western researchers have examined how segments of the social structure vote in national elections (e.g., Lipset 1960). It is often argued that higher-level managers, professionals, specialists, and business owners vote for right-wing parties, and that skilled and unskilled manual workers vote for left-wing parties. These choices result from the different political programs the right-wing and left-wing parties represent. The right wing argues for a *laissez-faire* economic policy and low taxes, while the left wing advocates a strong social welfare state and income redistribution to reduce the inequality between social groups. Farm owners vote for the right wing, while farm workers vote for the left wing (Nieuwbeerta and de Graaf 1999).

For easier operationalization, this basic relationship is usually simplified further. It is often stated that manual workers vote mainly for parties of the Left, while non-manual workers vote for those of the Right. However, such a binary approach has many drawbacks. Suppose we want to compare the pattern of this relationship at two different times. Let us further assume that, in the period between these instances, the political preferences of skilled workers moved to the right, while those of unskilled workers moved to the left. An analysis that simply divides voters into manual and non-manual groups would not detect that a significant shift in the political preferences of these groups of workers occurred.

Over the last half-century, social scientists have debated the relevance of class for voting behavior (Nisbet 1959). The debate gained more attention in Clark and Lipset's (1991) and Pakulski and Waters's (1996) studies (see also Inglehart 1990; Kingston 2000). The "death of class" theorists argue similarly that, since the 1950s, class declined in relevance. In their view, when social class is defined as being primarily about property and market relations, and is comprised of members who have little to no class consciousness, class no longer influences voting behavior (Pakulski and Waters 1996). Clark and Lipset (1991) argue that the working class should vote for left-wing parties; when they do not, class becomes irrelevant for political behavior.

Social classes, they claim, are replaced by modern social cleavages such as ethnicity, gender, and lifestyle.

It has been noted that studies demonstrating that class does not matter to political outcomes had methodological limitations (Hout, Brooks, and Manza 1995; Evans 1999; Andersen and Heath 2002). In particular, the Alford Index, a measure of the relationship between class and political parties, is emblematic of this problem. Goldthorpe (2001) argued that this index “is easily calculated from social survey data, that is, by taking the percentage of the working class who vote for left-wing parties and then subtracting from this percentage of those not in working class who vote for such parties. The larger the index, the stronger, it is supposed, is the class-vote link” (110). However, Goldthorpe indicated that it has some limitations. This index was criticized as too simplistic a measure of the relationship between class and political parties (Hout, Brooks, and Manza 1995). Nieuwbeerta (2001) compared the Alford Index with the more sophisticated Thomsen Index, which measures relative class voting through a log-odds-ratio as a measure of the class-vote link: “the log-odds-ratio can also be regarded as the log-odds for manual workers voting for a left-wing political party rather than a right-wing party minus the log-odds for non-manual workers voting in this way” (124). Using the EGP schema and Thomsen Index for a subset of countries, he finds that class is losing its relevance.

Opponents of the death-of-class hypothesis point out that the underlying process is actually more complex (Evans 1999; Domański 2000b). What we are witnessing is not the death of class but the restructuring of class and politics (Scott 2002, 23). New political divisions, such as those over environmental protection or human rights, diverge somewhat from traditional divisions. As a result, non-manual workers—professionals and specialists in particular—become more “left wing” than manual workers (Weakliem and Heath 1999a). However, occupation maintains its determinant role in voting attitudes and behavior.

In Poland, the political parties cannot be adequately represented on a one-dimensional left-right spectrum that reflects the representation of economic interests of various social categories. Other issues, such as attitudes toward the communist past or views on morals (e.g., abortion, the role of the Roman Catholic Church in public life), were also essential in creating political divisions. Farmers’ interests play an important role because of their relatively high percentage in occupational structure. Moreover, in the last two decades many changes took place in the Polish political spectrum. Many political enti-

ties ceased to exist, while others emerged; some parties fragmented or united. Therefore, it is hardly possible to formulate a death-of-class hypothesis in the same way as in the studies based on data from Western societies.

Because of constant changes on the political scene, tracing the relationship between class and voting in consecutive parliamentary elections has its limitations. Until 2011, the Polish People's Party (*Polskie Stronnictwo Ludowe*, PSL) and the Democratic Left Alliance (*Sojusz Lewicy Demokratycznej*, SLD) were the most stable, as these parties were listed on the ballots of all parliamentary elections since 1991. Yet even here a caveat is in order. The presence of other parties representing the interests of people living in rural communities (in the early 1990s, there was the PSL People's Agreement [*PSL Porozumienie Ludowe*], a party with a profile very similar to the PSL, while since 2001, there has been Self-Defense RP [*Samoobrona RP*]) could have taken some votes otherwise likely to go to the major rural party. Moreover, the SLD underwent some changes in this period. It started as an election coalition and subsequently turned into a political party: in the 2001, 2005, and 2007 elections, the SLD formed an election bloc with the Labor Union (*Unia Pracy*, UP),¹ and in some of the following analyses, these two parties have been considered jointly.

Much more serious methodological problems arise in the case of other parties and political blocs taking part in parliamentary elections from 1991 to 2011, particularly those groupings that the politicians belonging to the anticommunist opposition before 1989 joined after the system change. There have been two political trends there. The first one consisted of liberal parties. Initially, it was represented by the Democratic Union (*Unia Demokratyczna*, UD) and the Liberal Democratic Congress (*Kongres Liberalno-Demokratyczny*, KLD), which merged before the 1997 election to form the Freedom Union (*Unia Wolności*, UW). Since the 2001 election, the latter was marginalized by the appearance of Civic Platform RP (*Platforma Obywatelska RP*, PO), which attracted the majority of its electorate. Although Civic Platform was initially politically to the right of the UW, the programs of these two parties were similar in many respects, primarily their liberal economic program (in comparison to other parties), moderate position on social issues, and support for integration with the European Union. The second trend

¹ In 2007 the SLD formed a coalition with the UP, Social Democracy of Poland (*Socjaldemokracja Polska*, SDPL) and the Democratic Party—*demokracy.pl* (*Partia Demokratyczna*—*demokracy.pl*, PD).

encompassed the parties of the political Right: the Independent Self-Governing Trade Union “Solidarity” (NSZZ “*Solidarność*”), the Confederation of Independent Poland (*Konfederacja Polski Niepodległej*, KPN), the Centrum Agreement (*Porozumienie Centrum*, PC), the Christian-National Union (*Związek Chrześcijańsko-Narodowy*, ZChN), Solidarity Electoral Action (*Akcja Wyborcza Solidarność*, AWS), Law and Justice (*Prawo i Sprawiedliwość*, PiS), and many smaller political entities. Although these parties differed from each other in many respects, they also had significant common ground: social policy based on traditional Catholic values, a welfare-state approach in economic matters, and a negative attitude toward the communist past (these parties were the most vocal in demanding the political vetting of the new elite with respect to their pre-1989 past).

This brief overview of the political scene indicates that limiting the analysis to the division between parties of the Left and those of the Right would be inadequate. Right-wing social policy does not mesh with right-wing economic policy. Perhaps the most coherent is the position of the Democratic Left Alliance (SLD), although it is hard to say whether this party supports welfare-state policies more than other parties. For instance, the SLD seemed relatively uncritical of the privatization of state-owned business companies.

We can suppose that in Poland, the groups of higher social status supported the economic program of the liberal parties (that is, the UD, KLD, UW, and PO), while those of the lower status voted for parties of the Right. We can also suppose that the SLD would be located between these two blocs of parties, for reasons presented earlier. The PSL position would probably be the most attractive to manual workers because of its welfare-state support; still, it is worth remembering that its natural electorate consists of farmers rather than urban workers. Turning to social issues, the SLD appears on one side of the spectrum, while the PSL and the parties of the Right, which support traditional values, appear on the other; the liberal parties would likely be between the two. For this bloc of issues, it is reasonable to perceive the SLD electorate as being among non-manual workers. Farmers would probably support the parties praising traditional values. With respect to the attitude toward the communist past, the SLD and the right-wing parties are most likely on opposite sides, while the liberal parties are located in between—the latter have been much less vocal about wanting to vet the elites and call people to account for the communist past (initially the PO emphasized it more than any other liberal party). It is worth pointing out that although the PSL is basically a post-communist party, its post-1989 image

was built with reference to this party's pre-World War II tradition rather than its incarnation under communist rule.

The main dimensions of political disagreement mostly coincide with each other. When placing them in the context of class segments, one can expect that liberal parties and the SLD would have similar electorates; voting for them more frequently than for other parties would be the non-manual workers, professionals, specialists, and higher-level managers in particular. In turn, the manual workers and farmers, more often than not, would vote for the PSL and the parties of the political Right.

Introducing a distinction between class voting and class politics, Hout, Manza, and Brooks (1999) stressed that the former referred to the relationship between classes and political parties in a particular election. The latter was a more stable relationship, not associated with a single election event. In the case of Poland, one should not expect a confirmation of the hypothesis concerning class politics—the 20-year period under study (1991–2011) seems too short for such an assessment. The political scene has shown some symptoms of stability since 2005, but generally it changed so much from 1991 to 2011 that it is unlikely that specific parties would have represented the interests of any specific segments of the social structure in a consistent way. However, we would expect members of specific social groups to have voted in a similar way in consecutive elections—if not for the same parties, then at least for parties displaying a similar political profile. It is also likely that various classes would be more similar, or less similar, to each other in terms of their voting behavior (e.g., professionals and specialists' voting behavior would be closer to that of business owners than to that of manual workers), which would appear quite stable. The existence of such a pattern would indicate that, in spite of an unstable political scene, the political interests of specific social classes have remained divergent and translated into specific voting preferences.

We start by performing an analysis of class voting for consecutive elections using a detailed division into election committees. Such an analysis has a dual purpose. First, it will help to verify whether the four aforementioned political blocs (the SLD, the PSL, the liberal parties, and the right-wing parties) are group parties whose social base is homogeneous. Second, this analysis will take into account parties that, because of their specificity, e.g., Self-Defense, could not be included in the four-way division. Additionally, it will help to locate individuals who did not vote.

The hypothesis that the impact of class affiliation on voting preferences in Western democracies is weakening (Clark and Lipset 1991) provides a theo-

retical context for this analysis. With respect to the post-communist societies, there appear a couple of factors linked with the process of the post-1989 transformation that should have enhanced the role of social divisions: privatization of state businesses (and the resulting division with respect to the ownership among individuals), the rise of social inequalities, or the feeling of exclusion (Mateju, Rehakova, and Evans 1999). These factors could have caused significant differences among socio-occupational groups in terms of their voting behavior, especially in the early 1990s, when the social costs of the transformation were the most acute. It is also likely that in the period under study, the political parties were gradually learning the rules of the political game, and therefore class voting was still in the process of crystallization.

On the other hand, the economic changes that took place with the introduction of a market economy triggered significant changes in the occupational structure. In the period under study, the percentage of people earning a living in farming significantly decreased, while the percentage of business owners increased (Domański and Przybysz 2007; Domański, Przybysz, and Sawiński 2012). Occupational mobility could have influenced the process of crystallization of various social group interests and, indirectly, also the relationship between political preferences and occupational position. It is difficult to say whether these changes increased or decreased the strength of this relationship. It is difficult to formulate a clear hypothesis on whether the strength of class voting increased or decreased. Since class is strongly connected to education level, one of the aims of this analysis will be to examine the extent to which such factors, apart from others, shape voting preferences. Still, we expect that the impact of occupational affiliation on voting behavior in Poland is, to some extent, independent and appears even when education is controlled for.

Voting abstention is a separate issue for analysis. We suspect that in the 1990s voting abstention was mainly the result of factors associated with the social position of individuals. Political instability might have made it hard for the prospective voter to develop an informed opinion on which political party to vote for, particularly among manual workers and farmers, who are usually less educated. Hence it is likely that at the beginning of the period under study, individual affiliation in diverse socio-occupational categories was a main determinant of voting inactivity. Later on, disenchantment with consecutive governments and a widespread disillusionment with politics in general could have been a rising and eventually leading cause of low voter turnout. It is therefore quite probable that class has declined as an important factor in the decision to vote.

Data

To analyze class voting in the 1991, 1993, and 1997 elections, we used the data collected in the Polish General Social Survey (PGSS) in the years 1992, 1994, and 1997, respectively, while for elections held in 2001, 2005, 2007, and 2011, we use the data from the Polish part of the European Social Survey (ESS) collected in 2004, 2006, 2008, and 2012, respectively.

Some explanation is in order concerning the variables describing the respondent's voting behavior. They indicate whether the respondent voted and, if so, for which party (or which electoral bloc of parties). Since the political landscape in Poland changed thoroughly in the period studied, changing lists of parties had to be considered in consecutive elections. Categories of the variable describing the voter's preferences differed in consecutive elections as well. Because the application of log-linear (and log-multiplicative) modeling required that the number of cells in the contingency table² with low counts be very small, parties receiving the smallest support were neglected in the analysis.

This analysis is based on respondents' declarations, which could have differed from their actual voting behavior. Appendix D presents the eligible voters' electoral participation and the percentages of votes received in consecutive elections by individual parties, compared with the corresponding percentages based on respondents' declarations collected in the surveys.

The table in Appendix D shows that survey results differ substantially from the official data reported by the National Elections Committee (PKW). There could be a number of reasons for this. First, it could result from a random error, although it is rather unlikely that the sample drawing procedure was responsible for the size of this discrepancy. The fact that researchers were unable to complete many interviews scheduled (response rates were about 70 percent) seems a more decisive circumstance. The unavailability of respondents and their refusal to be interviewed were the main reasons for the relatively low participation in the study. It could be that respondents' characteristics that led them to not participate in the survey correlated with their voting behavior. It seems, for instance, that people who did not vote in elections were more likely to refuse to participate in the survey (Sztabiński, Sztabiński, and Przybysz 2007). Moreover, it seems that some respondents, for various reasons, declared a different vote than their actual behavior, with

² Strictly speaking, this refers to the expected counts fitting the model tested.

respect to both their electoral participation and their political preferences. For instance, some voters could have changed their voting preferences in the time between the election and the day they were interviewed; some may have preferred not to reveal to the interviewer their actual political stance; and finally, some may simply have forgotten which party they actually voted for. This last reason seems particularly convincing in the case of the 1991 and 1993 elections, when there were numerous competing parties, many of which lost support quickly or changed their names. Concerning the results of the analyses, the most prone to error were likely the data concerning the respondents' declarations about their participation in elections. Their declarations concerning the party they chose at the ballot box seem to be a lesser problem; even in cases where they identified a different party than the one they voted for, it was probably a party of a similar political orientation.

The way of coding information provided on occupational affiliation is equally important.³ I used the EGP international scheme (Erikson, Goldthorpe, and Portocarero 1979; see also Erikson and Goldthorpe 1992; Ganzeboom and Treiman 2003), which identifies basic dimensions of social inequality and nowadays constitutes a standard in cross-country comparisons. In the construction of the variable of socio-occupational affiliation it uses the International Classification of Occupations (ISCO), the employment relationship (being an employer or self-employed vs. being an employee), and being a supervisor (and if so, of how many subordinates).⁴

³ In the selection of the data set for this analysis, I was concerned about finding one with a truly valid measurement of socio-occupational classification. It is very likely that for many studies carried out by public opinion centers immediately following elections, the results concerning the voting would have been more reliable. However, in such studies, information concerning occupations is coded in a less accurate way, often using a closed question. This would impose an additional limitation on the comparability of consecutive studies.

⁴ One can argue that the EGP scheme does not sufficiently take into account the specifics of the Polish labor market, and therefore the *Social Classification of Occupations* (SCO) (Pohoski and Słomczyński 1978; Domański and Sawiński 1995b; Domański, Sawiński and Słomczyński 2009) would constitute a better indicator of socio-occupational affiliation. However, in the 1997 PGSS study, the data concerning occupation was not coded according to the SCO, thus making the EGP classification the only tool for comparing changes across time. Furthermore, analyses performed so far (Domański and Sawiński 1995a; Domański and Przybysz 2003; Domański, Przybysz, and Sawiński 2012) indicate that the EGP classification differentiates Polish respondents with respect to a number of selected variables as well as the SCO.

We applied in this analysis a version of the EGP scheme that contained the following six categories: (i) high-level professionals, administrators, and officials (including state officials), high-level business managers; (ii) low-level professionals, administrators, and officials, e.g., low-level managers in industry, technicians, nurses, accountants, routine non-manual office employees, and routine non-manual employees in trade and services (salespeople, post office workers); (iii) those self-employed outside agriculture; (iv) skilled manual workers; (v) unskilled manual workers; (vi) farm owners and agricultural workers.

With respect to the data used for this analysis, one more caveat is in order. Information on the respondent's education and occupation pertains to the time of data collection rather than the time of any election. Between these events, some respondents could have changed their occupation; they could have also acquired more education. This would probably apply to a rather small portion of the sample and would not have a significant effect on the presented analytical results pertaining to class voting.

Patterns of Class Voting in the 1991–2011 Parliamentary Elections

ANALYTICAL SCHEME

To analyze the relationship between class affiliation and political preferences in consecutive elections, we used log-linear and log-multiplicative modeling, commonly considered the most suitable tool for studying the joint distribution of two or more nominal variables.⁵ In studies on social structure, it is primarily applied in the analysis of social mobility and marital homogamy; in the last two decades it has also commonly been used in the analysis of class voting. The log-linear technique makes it possible to specify the type of relationship between the variables and measure its strength using easy-to-handle parameters (Evans 1999; Weakliem and Heath 1999b). In this respect the log-

⁵ To familiarize the reader with the method of analysis, I present the consecutive models in this chapter, stressing the interpretation of results. However, a full presentation of the method would be beyond the scope of this work. For a more detailed exposition of log-linear modeling, see Knoke and Burke (1980) and Agresti (1984).

linear technique has significant advantages over an analysis based on comparing the percentages of persons from various socio-occupational categories who voted for specific political parties.

Log-linear modeling serves two basic purposes. The first is to verify hypotheses that pertain to variable distributions and the relationships among them. The second is to present these distributions and relationships in terms of parameters. The verification consists of simplifying the “saturated” model. In the case of the relationship between voting for consecutive parties (V) and socio-occupational affiliation (C), this model takes the form:

$$(1) \quad F_{ij}^{VC} = \tau \cdot \tau_i^V \cdot \tau_j^C \cdot \tau_{ij}^{VC}$$

F_{ij}^{VC} identifies counts in the joint distributions V and C (in the two-dimensional table); they are functions of categories of these variables and their interaction VC. Regarding the parameters, τ denotes the general average of all expected counts (according to the model). Parameters τ_i^V pertain to the distribution of variable V—they reveal for which parties the respondents voted more frequently or less frequently (in other words, how frequently the i -th category of variable V appears compared to its other categories). Similarly, parameters τ_j^C present the distribution of socio-occupational affiliation. Parameters τ_{ij}^{VC} , in turn, refer to the interaction of these variables. They reveal whether the combination of the i -th category of variable V and the j -th category of variable C appears more frequently, or less frequently, than the remaining parameters of the equation indicate.

The model presented involves no hypothesis. When we formulate one, for instance a hypothesis claiming stochastic independence, we assume that all parameters τ_{ij}^{VC} are equal to 1, that is, that no interaction occurs between these two variables. In such a case we have:

$$(2) \quad F_{ij}^{VC} = \tau \cdot \tau_i^V \cdot \tau_j^C$$

This would mean that the voters' declarations concerning which parties they voted for did not depend on their socio-occupational affiliation. If this model were true, the pattern of voting preferences would be identical among professionals and specialists, low-level non-manual workers, and so on. The independence model is often used as a starting point: if we intend to examine a relationship between two variables, we first need to determine whether this relationship exists at all.

Table 10.1 presents the results of this model's goodness of fit to data. Log-linear models are usually verified by means of the χ^2 - or L^2 -statistics.⁶ Also used for this purpose—and included in Table 1 as well—are the number of degrees of freedom (attesting to the simplicity of the model: the more parameters it contains, the smaller its number of degrees of freedom), the p values (indicating the minimal significance level at which the model should be rejected), and the values of dissimilarity index.⁷

As Table 10.1 shows, the independence hypothesis is not realistic for any time cross-section, and therefore it should be rejected. This means that there exists a significant relationship between the fact of voting for a political party and the location in the social structure identified by occupation. Let us now examine the pattern of this relationship.

On the basis of earlier analyses of class voting, the most pertinent hypothesis seems to be the one about a hierarchical pattern of social barriers. According to this hypothesis, one could expect to fit all socio-occupational categories along one, or two, dimensions reflecting differences (and similarities) in the political voting behavior. In verifying this hypothesis, I used a log-multiplicative row-column model (Goodman 1979; Clogg 1982), which assigns parameters α_i and β_j to categories of variables considered (on the one hand, to categories describing respondents' voting preferences; on the other, to socio-occupational groups). We may interpret these parameters as characteristics of distances between categories of variables V and C . Formula (3) presents this model:

$$(3) \quad F_{ij}^{VC} = \tau \cdot \tau_i^V \cdot \tau_j^C \cdot e^{\alpha_i \beta_j}$$

The easiest way to understand this model is by considering what are known as "odds ratios." Table 10.2 presents the joint distribution of the voting (whether the respondent voted and, if so, for which political party, or elec-

⁶ In the case of large samples, both statistics have distributions approaching asymptotically the χ^2 distribution with the specific number of degrees of freedom. The one generally used more often is the L^2 statistics because of its useful features (Agresti 2002).

⁷ The dissimilarity index defines the percentage of respondents in the table of joint distribution who should be classified differently to get the distribution fitting the model. Its values may be from 0 to 100; the 0 value means that the sample data fit the model perfectly.

Table 10.1. Relationship between socio-occupational groups and voter preferences from 1991 to 2011: Test results for log-linear models^a

Model	df	χ^2	L ²	Δ
Models accounting for non-voters				
a. 1991 election (PGSS, 1992)				
a1. independence	30	227.4 (p < 0.001)	215.9 (p < 0.001)	16.0
a2. RC	20	62.2 (p < 0.001)	60.2 (p < 0.001)	5.6
a3. RC(2)	12	18.8 (p = 0.093)	21.2 (p = 0.047)	3.0
b. 1993 election (PGSS, 1994)				
b1. independence	35	284.9 (p < 0.001)	285.5 (p < 0.001)	18.0
b2. RC	24	60.9 (p < 0.001)	58.8 (p < 0.001)	7.6
b3. RC(2)	15	16.7 (p = 0.337)	17.6 (p = 0.282)	3.3
c. 1997 election (PGSS, 1997)				
c1. independence	30	274.7 (p < 0.001)	247.6 (p < 0.001)	13.2
c2. RC	20	77.7 (p < 0.001)	55.9 (p < 0.001)	5.1
c3. RC(2)	12	14.8 (p = 0.251)	14.0 (p = 0.301)	2.3
d. 2001 election (ESS, 2004)				
d1. independence	30	147.3 (p < 0.001)	151.3 (p < 0.001)	12.7
d2. RC	20	28.6 (p = 0.097)	29.4 (p = 0.081)	5.5
d3. RC(2)	12	10.6 (p = 0.567)	10.6 (p = 0.563)	2.5
e. 2005 election (ESS, 2006)				
e1. independence	25	165.4 (p < 0.001)	155.7 (p < 0.001)	12.0
e2. RC	16	15.5 (p = 0.489)	15.5 (p = 0.489)	3.2
e3. RC(2)	9	2.8 (p = 0.971)	2.7 (p = 0.973)	1.4
f. 2007 election (ESS, 2008)				
f1. independence	20	186.9 (p < 0.001)	184.1 (p < 0.001)	15.4
f2. RC	12	54.0 (p < 0.001)	54.0 (p < 0.001)	5.9
f3. RC(2)	4	6.4 (p = 0.171)	6.7 (p = 0.153)	2.1
g. 2011 election (ESS, 2012)				
g1. independence	20	136.7 (p < 0.001)	142.9 (p < 0.001)	12.3
g2. RC	12	15.3 (p = 0.225)	16.0 (p = 0.189)	2.9
g3. RC(2)	4	5.1 (p = 0.278)	5.2 (p = 0.268)	1.9

Model	df	χ^2	L ²	Δ
Models not accounting for non-voters				
h. 1991 election (PGSS, 1992)				
h1. independence	25	123.7 (p < 0.001)	100.6 (p < 0.001)	18.1
h2. RC	16	46.9 (p < 0.001)	46.8 (p < 0.001)	11.9
h3. RC(2)	9	11.3 (p = 0.258)	11.3 (p = 0.255)	5.0
i. 1993 election (PGSS, 1994)				
i1. independence	30	199.1 (p < 0.001)	192.7 (p < 0.001)	21.0
i2. RC	20	32.9 (p = 0.034)	33.4 (p = 0.031)	7.3
i3. RC(2)	12	7.5 (p = 0.820)	7.3 (p = 0.840)	2.8
j. 1997 election (PGSS, 1997)				
j1. independence	25	182.3 (p < 0.001)	152.6 (p < 0.001)	11.1
j2. RC	16	46.4 (p < 0.001)	38.8 (p < 0.001)	5.9
j3. RC(2)	9	12.2 (p = 0.200)	11.4 (p = 0.244)	2.7
k. 2001 election (ESS, 2004)				
k1. independence	25	114.1 (p < 0.001)	121.0 (p < 0.001)	14.9
k2. RC	16	21.7 (p = 0.153)	23.6 (p = 0.099)	6.3
k3. RC(2)	9	8.0 (p = 0.531)	8.0 (p = 0.526)	3.3
l. 2005 election (ESS, 2006)				
l1. independence	20	114.3 (p < 0.001)	104.1 (p < 0.001)	11.0
l2. RC	12	8.9 (p = 0.707)	9.0 (p = 0.702)	3.2
l3. RC(2)	6	1.5 (p = 0.956)	1.5 (p = 0.957)	1.5
m. 2007 election (ESS, 2008)				
m1. independence	15	104.9 (p < 0.001)	104.9 (p < 0.001)	11.5
m2. RC	8	19.8 (p = 0.011)	19.6 (p = 0.012)	4.4
m3. RC(2)	1	3.9 (p = 0.047)	4.2 (p = 0.039)	1.5
n. 2011 election (ESS, 2012)				
n1. independence	15	65.7 (p < 0.001)	66.5 (p < 0.001)	10.8
n2. RC	8	8.1 (p = 0.422)	8.8 (p = 0.360)	2.5
n3. RC(2)	1	2.9 (p = 0.091)	3.0 (p = 0.084)	1.3

^a RC: row-column model; RC (2): two-dimensional row-column model

tion bloc of parties, he or she did) with respect to socio-occupational affiliation, based on the 2006 ESS data. Let us consider the highlighted cells of this distribution (Table 10.2). Among professionals and specialists, twice as many people voted for Law and Justice (PiS) (34) as for the Democratic Left Alliance (SLD) (17). Among the skilled workers, in turn, there were almost five times more PiS voters than SLD voters ($56/12 = 4.66$). Thus these proportions are not identical, as is reflected by the odds ratio:

$$\Theta_{5/2;4/1}^{VC} = (56/12)/(34/17) = 2.23$$

This value indicates that the proportion of PiS voters compared to SLD voters is over two times larger among the skilled workers than among the professionals and specialists. If it were 1, it would indicate that these proportions were identical, meaning that for the two political parties and the two socio-occupational groups in question, the voting and the socio-occupational position were independent.

Hence the odds ratios measure the strength of the relationship occurring between variables. If they were stochastically independent, all odds ratios for any pair of categories of both variables would be equal to 1. Alternatively, the odds ratios may be shown in the form of $\ln(\Theta)$. These values may either be

Table 10.2. Respondents' declarations regarding voting vs. socio-occupational groups (ESS, 2006)^b

Socio-occupational groups	For whom the respondent voted in 2005:					
	1. Non-voters	2. SLD	3. PO	4. PSL	5. PiS	6. Self-Defense
1. Professionals and specialists; high-level managers	17	17	46	1	34	1
2. Low-level non-manual employees	122	31	93	5	129	10
3. Business owners	23	8	21	1	26	3
4. Skilled workers	74	12	33	8	56	11
5. Unskilled workers	172	10	58	5	102	26
6. Farmers	61	4	15	8	35	27

^b Listed in the table are only those political parties that—according to the ESS data—received the most support in the 2005 election.

negative (when $\Theta < 1$) or positive (when $\Theta > 1$); $\ln(\Theta) = 0$ indicates independence. For the example considered, $\ln(\Theta_{5/2;4/1}^{VC}) = 0.8$.

In the row-column model considered, any odds ratio depends on distances this model assigned to the values of one or the other variable. Putting it more precisely:

$$(4) \quad \ln(\Theta_{a/b;c/d}^{VC}) = (\alpha_a - \alpha_b) \cdot (\beta_c - \beta_d)$$

How should the parameter values be interpreted? Equality of the values assigned to any two socio-occupational groups, namely $\beta_c = \beta_d$, would indicate that the members of these groups did not differ with respect to their voting preferences. The larger the difference between β_c and β_d , the more different preferences these socio-occupational groups may display. Moreover, these differences depend on the political parties compared. Therefore one needs to take into account the differences between the parameters α_a and α_b characterizing the parties for which the respondents voted.

The row-column model applied to the data presented in Table 10.2 is acceptable for year 2005 as indicated by the goodness-of-fit statistics shown in Table 10.1: for the e2 model we have: $\chi^2 = 15.5$, $L^2 = 15.5$ with 16 degrees of freedom ($p = 0.49$). Parameters defining the distances between the socio-occupational groups are as follows: professionals and specialists (−1.358), office workers (−0.262), owners (−0.371), skilled workers (0.307), unskilled workers (0.529), farmers (1.155). As expected, the largest differences in voting preferences occur between high-level managers, professionals, and specialists versus farmers.

Parameter values for the variable indicating whether the respondents voted and, if so, for whom, are the following: for the SLD (−1.018), the PO (−0.774), the PiS (−0.333), the PSL (0.682), and Self-Defense (1.225); for the category of non-voters, it was (0.218). Hence in this respect the inter-party differentiation does not strictly follow their distribution on the left-right dimension. How should this finding be interpreted? The row-column model assigns to categories of one variable (voting preferences) the values determined with respect to the distribution of the other variable (socio-occupational affiliation); therefore, the parameters for specific political parties reveal the socio-occupational characteristics of their electorates. It follows that the PSL and Self-Defense found the largest support among farmers and manual workers, while the SLD and the PO electorates come mainly from professionals and specialists, the self-employed, and office workers. These param-

eters make it possible to assess the odds ratio for any two socio-occupational groups and any two political parties. For example, comparing the PO with the PSL, on the one hand, and professionals and specialists with farmers on the other, we find that the relevant logarithm of chances computed according to formula (4) equals $(-0.774 - 0.682) \cdot (-1.358 - 1.155) = 3.65$. This means that according to the model, the ratio of the number of PO voters with respect to those voting for the PSL is almost 39 times ($e^{3.65}$) higher among the professionals and specialists than among the farmers. There is some correspondence between the voters' preference for political parties and the socio-occupational groups they belong to: members of socio-occupational groups with positive parameters vote more frequently for parties with positive parameters, while members of groups with negative parameters more often vote for parties with negative parameters. The higher the absolute values of these parameters are, the stronger the relationship is between socio-occupational affiliation and voting preferences.

This analysis was performed for all time points considered. It was completed in two versions—one taking the non-voters into account (models a1–g3 in Table 10.1) and the other omitting them (models h1–n3 in Table 10.1). The row-column model fits the data well for 2001, 2005, and 2011, but in other time instances it should be rejected at the 0.05 significance level. Why? One can guess that the differences between political parties and social classes are not necessarily one-dimensional. In other words, the claim that all political parties can be located on one dimension with respect to their social background of their electorates is disputable.

For this reason, a better-fitting model is in order—in this case, a more complex version of the row-column model. The hypothesis associated with this model assumes a two-dimensional kind of differentiation among both the socio-occupational groups and the voting preferences. Now the model is acceptable for any time instance considered. Tables 10.3 and 10.4 present the parameters obtained with this model for socio-occupational groups and political parties, which one may interpret as a characteristic of the “profile” of class voting in the period considered. Since the parameter differences for political parties and socio-occupational groups were usually similar regardless of whether non-voters were included or omitted,⁸ we will focus only on findings obtained for the model in which the non-voters have been included.

⁸ The only exception is the 2011 election; this case is discussed later on.

PROFILE OF "CLASS VOTING" AND THE VOTERS' PREFERENCES

Let us first consider the 1991 elections. Parameter values for socio-occupational categories (Table 10.3) indicate that the main division—along the first (more differentiating) dimension—occurs between the manual and non-manual workers. The two groups differing the most are, on the one hand, the professionals and specialists and, on the other, the farmers, while the business owners appear in the middle of the range. The second dimension reflects the specifics of the farmers, who are, this time, located closer to professionals and specialists while opposing the manual workers. Parameters for political parties, provided in Table 10.4, form a hierarchy—from the KLD, followed by the UD, the SLD, the KPN, the Independent Self-Governing Trade Union "Solidarity," the non-voters, and, finally, the PSL.

Based on this, it can be said that non-manual workers, particularly the professionals and specialists, declared preferences closer to liberal parties and the SLD (in the first dimension, the parameters of both these groups are negative for both variables). According to the model, the parties on the political right received stronger support from manual workers and farmers. The second dimension identifies a distinctive feature of the PSL electorate, which mainly consists of farmers. It is worth noting that the parameter values for the second dimension—in the case both of socio-occupational groups and of political parties—are less differentiated. This is also true in the case of further analyses because of the stronger significance of the first dimension, which identifies the most important differences in the voting preferences of specific socio-occupational groups as well as the largest differences in social background of specific political parties. To sum up, while the first dimension highlights the basic differences between manual and non-manual workers, an adequate representation of the mapping of class voting requires considering the second dimension, which reveals the specific situation of the farmers. Turning to non-voters, they are located in the vicinity of the PSL. Indeed, both the farmers and manual workers revealed they had not taken part in elections more often than other socio-occupational segments.⁹

⁹ In additional analyses, I took into account the parties with small numbers: the Centrum Agreement, Catholic Electoral Action, and PSL People's Agreement. The first two of these parties can be placed between the KPN and the PSL, while the third one is very close to the PSL. Both the PSL and PSL People's Agreement represented the interests of farmers; therefore, their parameters were similar.

Table 10.3. Parameters for socio-occupational groups in elections from 1991 to 2011

Election year	Socio-occupational group					
	High-level managers, professionals, specialists	Low-level non-manual employees	Business owners	Skilled manual workers	Unskilled manual workers	Farmers
1991 – 1st dimension	–0.802	–0.439	–0.506	–0.112	0.553	1.306
1991 – 2nd dimension	–0.978	0.209	0.002	0.748	0.689	–0.672
1993 – 1st dimension	–1.788	–0.886	–0.365	–0.487	–0.129	3.655
1993 – 2nd dimension	0.715	–0.392	–1.059	–0.365	–1.102	2.203
1997 – 1st dimension	–0.937	–0.612	–0.411	0.314	0.479	1.167
1997 – 2nd dimension	–1.264	0.297	0.086	0.353	0.551	–0.023
2001 – 1st dimension	–2.155	–0.100	0.415	0.468	0.459	0.912
2001 – 2nd dimension	0.075	–0.438	–0.962	–0.057	0.503	0.877
2005 – 1st dimension	–1.261	–0.221	–0.341	0.230	0.642	0.952
2005 – 2nd dimension	–0.833	–0.244	–0.071	0.430	–0.229	0.948
2007 – 1st dimension	–1.043	0.463	–0.113	0.222	0.446	0.951
2007 – 2nd dimension	–1.074	0.041	–0.440	0.652	0.809	0.011
2011 – 1st dimension	–0.961	–0.109	–0.386	0.355	0.471	0.630
2011 – 2nd dimension	–0.812	–0.230	–0.366	–0.0375	0.270	1.176

Table 10.4. Parameters for political parties in elections from 1991 to 2011

Political party	Non-voters	KLD	UD	SLD ^a	KPN	ISTU Solidarity	PSL	UP	AWS	ROP	UW	PO	LPR	PIŚ	Self-Defense
1991 – 1st dimension	0.859	-1.128	-0.410	-0.313	-0.044	0.130	0.906	-	-	-	-	-	-	-	-
1991 – 2nd dimension	0.237	0.253	-0.437	-0.420	0.785	0.597	-1.015	-	-	-	-	-	-	-	-
1993 – 1st dimension	1.292	-2.087	-2.944	0.496	0.762	0.779	1.128	0.574	-	-	-	-	-	-	-
1993 – 2nd dimension	0.270	-1.375	-1.931	1.050	0.358	0.272	0.864	0.491	-	-	-	-	-	-	-
1997 – 1st dimension	0.412	-	-	-0.283	-	-	1.326	-0.598	-0.065	0.066	-0.858	-	-	-	-
1997 – 2nd dimension	0.434	-	-	0.212	-	-	-1.170	0.577	0.320	-0.271	-0.102	-	-	-	-
2001 – 1st dimension	-0.077	-	-	-0.566	-	-	0.267	-	-	-	-	-0.799	-0.312	-0.643	2.131
2001 – 2nd dimension	0.249	-	-	0.095	-	-	0.839	-	-	-	-	-0.941	0.415	-0.553	-0.104
2005 – 1st dimension	0.572	-	-	-1.103	-	-	-0.104	-	-	-	-	-0.455	-	-0.075	1.165
2005 – 2nd dimension	-0.476	-	-	0.124	-	-	1.066	-	-	-	-	-0.550	-	-0.399	0.235
2007 – 1st dimension	0.229	-	-	-0.551	-	-	1.160	-	-	-	-	-0.874	-	0.036	-
2007 – 2nd dimension	0.729	-	-	0.183	-	-	-1.330	-	-	-	-	0.274	-	0.145	-
2011 – 1st dimension	0.964	-	-	0.203	-	-	-0.691	-	-	-	-	-0.603	-	0.127	-
2011 – 2nd dimension	-0.111	-	-	-1.072	-	-	1.042	-	-	-	-	-0.080	-	0.221	-

^a Starting with the 2001 election, the SLD was running in one election bloc with the UP. In 2011 the SLD formed a coalition with the UP, Social Democracy of Poland and the Democratic Party—demokraci.pl.

The ranking of socio-occupational categories in 1993 is basically similar; it differs mainly from that for 1991 in that the business owners are located in the first dimension between the skilled and unskilled manual workers. It is difficult to interpret this result; the category of business owners is numerically small in our sample, so this effect could be merely incidental. Parameters obtained for political parties situate liberal parties on one side, with the right-wing parties, the PSL, and non-voters on the other. The left-wing parties, the SLD and the UP, are located in the middle, much closer to the right-wing parties than in 1991. A parameter comparison for both these variables suggests that, like two years earlier, professionals and specialists, together with the high-level managers, support liberal parties, while the manual workers and farmers support right-wing parties and the PSL. Along the second dimension, as in 1991, farmers are located opposite unskilled workers. In addition, this dimension identifies the peculiarity the SLD electorate. In 1993 this party obtained strong voter support and won elections. Presumably this result was due to the party's effectiveness in reaching manual workers and farmers—two segments of society that bore very high costs of the socio-political transformation.¹⁰

In 1997 the first dimension, concerning the socio-occupational segments, reflects a typical pattern—manual workers vs. non-manual workers. In the second dimension the farmers appear closer to professionals and specialists. The pattern of political parties is also similar to the one in 1991. Solidarity Electoral Action (AWS), gathering various right-wing groups and the supporters of the Independent Self-Governing Trade Union “Solidarity,” is positioned in the middle of the distribution, relatively close to the SLD. This may suggest that in spite of important ideological differences, these political entities had similar supporters. As in 1993, political parties with the strongest support are located in the middle of the scale, which indicates that they obtained support among both manual and non-manual workers.

In 2001 the differences among socio-occupational groups are similar to those in 1991–1997. Three new political parties appear for the first time in these elections—Civic Platform (PO), Self-Defense, and Law and Justice (PiS). On one side of the range is the liberal-conservative PO, and on the other is Self-Defense, considered a populist grouping. Its position on the spectrum indicates that it had strong support not only among farmers but also among

¹⁰ In preliminary analyses accounting for small parties, the PC was rather close to the KLD, while PSL–PL was close to the PSL; the Catholic political group Motherland (*Ojczyzna*) and the BBWR were located in the middle.

manual workers. The PiS is located near the SLD, revealing similar social support for these parties, even though the opinions their politicians express are very different on many issues, mainly concerning their worldview and the communist past. Also differently than before, the non-voters appear closer to the center; in addition, the outermost position held by the PSL is now occupied by Self-Defense. A different character of the PSL electorate and different political preferences of the farmers show up in the second dimension.¹¹

The mapping of class voting¹² was similar in 2005 except for the location of SLD. Popular support for this party decreased dramatically as a result of various corruption affairs (the infamous Rywin affair¹³ among them). This time the SLD appeared on the outer edge of the spectrum, next to the PO. Taking into account the parameters for socio-occupational categories, this change may suggest that the main support lost by the SLD was the one coming from manual workers and farmers. Also worth noting is the fact that the political preferences of the owners were, this time, closer to those provided by professionals and specialists than in the previous elections.¹⁴

For 2007 and 2011, only four parties were included in the analysis: the PO, the PiS, the PSL, and the SLD.¹⁵ General patterns of class voting were

¹¹ Because of the small number of cases, I excluded the UW and the AWS from the analysis. A preliminary analysis accounting for them indicated that these parties appear at opposite extremes. The UW draws its primary support from professionals and specialists, other non-manual employees, and business owners, while the AWS's support comes mainly from manual workers and farmers.

¹² In 2007 the LPR received 8 percent of the votes, but in ESS 2006 only 2 percent of respondents stated that they had voted for this party. Because there were so few cases, I excluded this party from analysis.

¹³ See: https://en.wikipedia.org/wiki/Rywin_affair.

¹⁴ For comparative reasons, I present here the two-dimensional solutions for 2001, 2005, and 2011, but as the results in Table 1 indicate, a simpler, one-dimensional model is acceptable for these election events. Since the conclusions from the parameters of the latter are very similar to those for the first dimension of the two-dimensional model, I do not present them here.

¹⁵ In 2007, Samoobrona and the LPR got less than 2 percent of the votes, and since that time, these parties have become a minor political force. In 2011, Palikot's Movement received 10 percent of the votes, but in ESS 2012, only 3.6 percent of respondents declared they had voted for this party. Because of this discrepancy and the small number of cases, I decided to exclude this party from the analysis. A preliminary analysis including Palikot's Movement indicated a similar position to the PO in the first dimension, and parameters for the second dimension place this party near the SLD.

similar to those observed for 2005. We should emphasize that since 2005, the political scene in Poland has been dominated by competition between the PO and the PiS. Parameters in Table 10.4 suggest that non-manual workers—especially professionals and managers—supported the PO. By comparison, manual workers and farmers were closer to the PiS, but this tendency is not very strong. It is difficult to interpret unstable values of parameters for the SLD and the PSL in 2007 and 2011. For example, in 2011 the PSL was located near the PO, which seems inconsistent with the results for previous elections, but it should be noted that parameters for the PSL and the SLD are different for the model that does not take non-voters into account: the PSL is located closer to the PiS, and the SLD is closer to the PO. These values should be interpreted with caution, as only few respondents in the sample declared that they had voted for these parties.

Although the political scene keeps changing from election to election, some consistent features appear. First, for each election year the voting results depend on socio-political affiliation. Results do not support the claim that members of different socio-occupational groups have similar voting preferences. All analyses show that, in the period considered, the socio-occupational position differentiated the voting behavior.

Second, fitting the data is the model of class voting patterns, which is based on the assumption that the differences between parties, as well as those between socio-occupational groups, can be presented on one or two dimensions. The two-dimensional model was required for the 1991, 1993, 1997, and 2007 data: political parties could not be fitted along one dimension with respect to their supporters' socio-occupational affiliation. The same was true for socio-occupational groups with respect to the voting behavior of their members. However, the one-dimensional solution was acceptable for the elections in 2001, 2005, and 2011. Still, it is too early to claim that the voting patterns in Poland have become simpler and that this is a lasting tendency.

Third, the pattern of similarities and differences among socio-occupational groups, which is revealed by the analysis of their political preferences, tends to be stable. On one side of the spectrum, the professionals and specialists appear, while on the opposite side are the farmers. Non-manual workers and owners are relatively close to professionals and specialists, while the skilled and unskilled manual workers are close to the farmers. Turning to the pattern of political preferences, professionals and specialists, non-manual workers, and business owners support mainly the liberal political parties and SLD; manual workers and farmers support the right-wing parties and PSL.

The second dimension reveals the specific position of farmers, contrasting them with manual workers.¹⁶

Fourth, the power bases of political parties changed during this period. The most stable support in this respect was the support for the PSL and the liberal parties. The electorate of the SLD and the UP changed more, but in general, these parties were supported mainly by non-manual workers, while the right-wing parties were supported by manual workers. Although no party of the political Right participated in all elections, and therefore it is difficult to identify clear tendencies, all these parties, in general, occupy the same area on the political spectrum: between the PSL and Self-Defense on the one hand, and the SLD and the liberal parties on the other.

Fifth, it is worth assessing the position of non-voters as compared to those who voted for specific political parties. Parameters shown in Table 10.3 indicate that in the 1990s, non-voters had a similar socio-occupational profile as the electorate of the PSL and the right-wing parties. It follows that before the year 2000, the manual workers and farmers, by comparison, abstained more often from voting. In 2001 and 2007, in turn, non-voters are located in the middle of the spectrum; in 2011 the parameters show a similar relationship as in 1991 and 1993. This finding suggests that although participation in elections was strongly associated with socio-occupational affiliation, the pattern of this relationship is ambiguous. Later, I will return to the issue of voter abstention.

Sixth, it is interesting to note that the parties that collected significant voter support in the first (more important) dimension were usually located in the middle of the spectrum. This is clearest in the case of the SLD in the 1993, 1997, and 2001 elections. When this party lost elections in 2005, its position changed because a major part of its former electorate withdrew their support. Similarly, positioned in the middle were the AWS in 1997 and the PiS in 2005 (the only exception is the PO in 2007 and 2011). This may indicate that in contemporary Poland (from 1991 to 2005), electoral success depended largely on the party's ability to communicate its political message to various social groupings. Depending on whether the party was fighting for an electoral win, or instead for its own survival, its slogans have been either more universal or addressed to a specific bloc of voters.

¹⁶ It is worth noting that the similarities and differences among socio-occupational groups reveal patterns similar to other aspects of social stratification, such as marital patterns or those of social mobility (Domański and Przybysz 2007; for marital patterns, see also Kacprowicz 1989).

Summarizing these findings, changes on the political scene from 1991 to 2011 did not confirm the “class politics” hypothesis—political parties did not seem to represent consistently the interests of major socio-occupational groups. However, it is striking that, in spite of this unstable situation, the pattern of similarities and differences with respect to political preferences among socio-occupational segments has remained stable. For instance, it was not the case that in some elections, professionals and specialists voted like manual workers, while in other elections, they voted like farmers. Because the range of political parties on the ballot changed, the members of specific socio-occupational groups in consecutive elections did not support the same political parties; however, these groups differed from each other, and the pattern of their differences remained stable.

CHANGE IN THE STRENGTH OF CLASS VOTING FROM 1991 TO 2011

The findings presented so far concern specific cross-sections of time. The next step in this analysis is to determine whether in the analyzed time span, any trend appeared in the strength of class voting. In empirical sociology, there is an ongoing debate over whether this relationship remains strong or is fading (e.g., Inglehart 1990; Evans 1999). Although the results of analyses conducted for countries in Western Europe indicate a weakening of this relationship (Franklin 1985; Nieuwbeerta and de Graaf 1999; Brooks, Nieuwbeerta, and Manza 2006; Jansen, de Graaf, and Need 2011; Evans and Tilley 2012; Jansen, Evans, and de Graaf 2013), for countries in Central Eastern Europe, researchers point to processes occurring in the 1990s, such as privatization and a deepening of social inequalities, which could strengthen the relationship between class affiliation and voter attitudes (Mateju, Rehakova, and Evans 1999). Changes in socio-occupational structure could constitute another factor affecting the strength of this relationship.

Finding a possible trend requires defining the same political blocs for all time instances considered in the study. I established four such blocs: (i) the SLD and the UP, (ii) the liberal parties UD, KLD, UW, and PO, (iii) right-wing parties (e.g., the Independent Self-Governing Trade Union “Solidarity,” the AWS, and the PiS), (iv) the PSL.¹⁷ These blocs are not homoge-

¹⁷ The parties that in consecutive elections were considered to belong to the right-wing bloc are marked in Appendix D (with a superscript “a”).

neous; for instance, initially the PO was politically to the right of the UD and the KLD. Similarly, the programmatic differences between the AWS and the PiS are significant, yet these parties share the pro-social economic policies, attitudes toward the country's communist past, and traditional social and moral values. This division identifies basic political differences; moreover, the detailed analyses presented so far indicate that the electorate within each of these political blocs is homogenous.

It should be noted that the division presented does not involve all political entities that participated in the discussed parliamentary elections. This classification does not include Self-Defense, PSL People's Agreement, the Union of Real Politics, the Nonpartisan Bloc of Reform Support (BBWR), and Palikot's Movement. However, except for Self-Defense, these parties did not achieve significant support among the electorate in consecutive elections.

Models presented earlier examined the form and strength of the relationship studied, but each of them dealt with just one election event. Since the analysis below deals with the time-change in the strength of this relationship, it is necessary to consider the data from the whole period in the framework of a single model. The stability model, assuming that both the pattern and strength of class-voting did not change between consecutive time cross-sections, constitutes a natural starting point.

$$(5) \quad F_{ijk}^{VCT} = \tau \cdot \tau_i^V \cdot \tau_j^C \cdot \tau_k^T \cdot \tau_{ik}^{VT} \cdot \tau_{jk}^{CT} \cdot \tau_{ij}^{VC}$$

This model takes into account three variables: class affiliation (C), political preferences (V), and the election year (T). New parameters associated with the T variable (τ_k^T) identify the sample numbers in consecutive time-sections under study; parameters τ_{ik}^{VT} and τ_{jk}^{CT} indicate a possibility of temporal changes in the support for four political blocs and the socio-occupational structure; parameter τ_{ij}^{VC} , in turn, relates to the relationship between class association and the act of voting. In the time-change analysis this model is usually applied as a point of reference for testing consecutive models (hypotheses). It assumes constancy in the pattern and strength of the relationship between variables C and V (notice that the τ_{ij}^{VC} parameter is not indexed by values of the T variable), which means that political preferences may depend on socio-occupational position, but this relationship is constant for all elections in the period of study. Test results presented in the first row of Table 10.5 indicate that this model is to be rejected at the significance level

Table 10.5. Relationship between socio-occupational groups and the voting for consecutive elections from 1991 to 2011. Test results for log-linear models

Hypothesis on the relationship between socio-occupational group and voting	df	χ^2	L ²	Δ
1. Stability model	90	150.8 (p < 0.001)	156.3 (p < 0.001)	5.2
2. Unidifference model	84	121.1 (p = 0.005)	123.7 (p = 0.003)	4.6

equal to 0.01. This means that the strength or pattern of class voting changed in the period under study.

More realistic in presenting these relationships is the Unidifference model introduced by Xie (1992)¹⁸ and often applied in studies on class voting. The hypothesis associated with this model assumes that the pattern of the relationship between socio-occupational affiliation and class voting remains constant, but changes in its strength across time are possible. Let us assume that the odds of farmers voting for PSL rather than SLD are twice the odds of manual workers voting for PSL rather than SLD and four times as large as for non-manual workers. Then, in the next election, the *pattern* of this relationship is the same, but the *strength* could be (for example) squared, meaning that the odds in question among farmers should be 2² times as large as among manual workers and 4² as large as among non-manual workers. Hence, the odds ratios increase, but the relationship among them remains constant. According to this hypothesis, the formula determining the expected numbers of voters is the following:

$$(6) \quad F_{ijk}^{VCT} = \tau \cdot \tau_i^V \cdot \tau_j^C \cdot \tau_k^T \cdot \tau_{ik}^{VT} \cdot \tau_{jk}^{CT} \cdot (\tau_{ij}^{VC})^{\Phi_k}$$

This hypothesis does not make any assumption concerning the pattern of the relationship between socio-occupational affiliation and voting preferences, except for requiring that this pattern be identical for all elections considered (parameters τ_{ij}^{VC} represent that requirement). Parameters Φ_k , in turn, identify the strength of this relationship. As Table 10.5 demonstrates, Model 6 should

¹⁸ This model is also called the log-multiplicative layer effect model. It was employed in Chapter 4 of this volume.

be rejected at 0.01 significance level¹⁹ even though it fits data significantly better than Model 5. Values of the parameters identifying the strength of class voting are scaled so that Φ_{1991} is set to 1 and the values for further years are established accordingly, becoming: $\Phi_{1993} = 1.23$, $\Phi_{1997} = 1.02$, $\Phi_{2001} = 0.85$, $\Phi_{2005} = 0.57$, $\Phi_{2007} = 0.72$, $\Phi_{2011} = 0.58$.

A comparison of Φ_k values for consecutive years demonstrates that, compared to 1991, the strength of class voting increased in 1993, then started to decrease. This trend is not monotonic, as the strength for 2007 is higher than for 2005. This result can be regarded as a reflection of the rapid growth of social inequality in the early 1990s, which stimulated a differentiation of political preferences among the socio-occupational groups in the 1993 election. However, in later years—that is, since 1997—the strength of this relationship decreased and the personal situation of individuals of different socio-occupational position had a weaker effect on the differentiation of their voting behavior.

Nevertheless, it is still possible that the 1993 and 2007 results have been somewhat incidental and that, in general, class voting is steadily weakening. These results require a cautious interpretation, since democratic elections have been held in Poland for only about 25 years. This provides too short a perspective to be sure that we are dealing with a weakening relationship between voting attitudes and socio-occupational position. Moreover, because of the distinctiveness of the Polish political scene, any comparison of our analytical results with those in other countries would have to be limited.²⁰

¹⁹ One explanation for why Model 6 should be rejected (at standard 0.05 or 0.01 significance level) is that the analysis is based on a large dataset (a total of more than 5,000 respondents). Such a situation very often leads to rejection of all unsaturated models (Hagenaars 1990). Nonetheless, we cannot rule out the possibility that this model does not accurately reflect changes in 1991–2011, i.e., that not only the strength of class voting but also the pattern of this relationship has changed in this period. Additional analyses show that Model 6 could be accepted at the 0.01 significance level if only the period 1991–2005 is considered; similarly, it fits the data well if the analysis is limited to the elections between 2001 and 2011. Results of Model 6 for the whole period 1991–2011 should be interpreted with caution. Thus other descriptive measures for nominal variables—including uncertainty coefficients (entropy coefficients)—were calculated to compare the strength of the relationship between socio-occupational affiliation and voting preferences in consecutive elections. Values of these coefficients confirm results from Model 6.

²⁰ Domański (2008) shows that when a dichotomous division into right-wing and left-wing political parties is applied, class voting in Poland is weaker than in other countries.

In any case, the results presented do not indicate that class voting is increasing. There is no evidence that differences in political interests of socio-occupational groups had grown in the period of analysis and that politicians took advantage of this differentiation. Still possible is another interpretation—some decrease in the strength of “class voting” could be associated with the development of populist strategies. In fact, in the 1990s, political parties could make election promises to various socio-occupational groups without paying attention to their consistency (as, indeed, they did). This strategy may, in fact, work—provided the electorate does not perceive these signals as contradictory. Such phenomena could decrease the strength of class voting because political parties applying catch-all strategies do not represent interests of specific social groups.

EDUCATION EFFECT

Many studies demonstrate that voting behavior depends on education level (e.g., Raciborski 1997; Müller 1999; Jansen, Evans, and de Graaf 2013). This “resource” can open (or close) access to specific occupations since, obviously, to perform a specific occupation, one needs to have specific skills (Domański 2009). The strong correlation observed between these two variables makes it possible to formulate a hypothesis that political preferences are mainly defined by the education level, while their relationship with socio-occupational affiliation results from the fact that the latter requires the person working a specific job to have specific skills and therefore a specific level of education. For instance, the over-representation of professionals and specialists in the PO electorate results from their usually having tertiary education, and it is the latter that makes members of this group prone to the liberal ideology that the PO is known for. In terms of statistical analysis, one can verify the hypothesis involved by asking whether, after the control for education,²¹ the relationship between socio-occupational affiliation and voting remains significant. The control for education in log-linear modeling means analyzing the relationship between the voting and socio-occupational affiliation on each education level. A lack of relationship between these variables among persons with elementary education, incomplete secondary education, and so on

²¹ Obviously, one can control for other variables, such as gender or age. In this chapter I focused on education, as it seems to have the strongest correlation with the socio-occupational position.

would provide a basis for concluding that the already established relationship between the voting affiliation and socio-occupational affiliation in the whole population may be an effect of dependence of these variables on education.

To answer this question, I used a model which, in addition to class affiliation (C), political preferences at the election event (V), and the year of study (T), takes into account the education effect (E):

$$(7) \quad F_{ijkm}^{VCTE} = \tau \cdot \tau_i^V \cdot \tau_j^C \cdot \tau_k^T \cdot \tau_m^E \cdot \tau_{jm}^{CE} \cdot \tau_{im}^{VE} \cdot \tau_{ik}^{VT} \cdot \tau_{jk}^{CT} \cdot \tau_{mk}^{ET} \cdot \tau_{ikm}^{VTE} \cdot \tau_{jkm}^{CTE}$$

Parameter τ_{ikm}^{VTE} indicates that in consecutive elections, the relationship between education and voter political preferences may differ; τ_{jkm}^{CTE} in turn identifies a possible occurrence, in the period considered, of changes between socio-occupational affiliation and education. Parameters τ_{jk}^{VC} , involving the relationship between voting and socio-occupational affiliation, are omitted this time. Hence, we assume these variables to be independent for each education level considered.

The need to provide enough cases in the cells of the joint distribution places limits on this kind of analysis. To reduce the impact of this limitation, I counted lower-level non-manual workers and business owners as one single group, and I counted skilled and unskilled manual workers as another single group. In earlier analyses, parameters for the combined groups did not differ significantly, which could mean that members of these larger groups actually had similar political preferences. For the same reason, I considered only two levels of education: (i) elementary and incomplete secondary (including basic vocational), and (ii) secondary, incomplete tertiary, and tertiary.

The result of this test is negative. It shows that the model does not fit the data: $L^2 = 470.6$ ($p < 0.0001$) with 126 degrees of freedom (dissimilarity index is 8.5). We may therefore conclude that even with the control of education level, socio-occupational affiliation remained a significant determinant of voter political preferences. Introducing to this model the τ_{ij}^{VC} and τ_{ijk}^{VCT} parameters, which identify changes in the strength of the relationship between socio-occupational affiliation and voting, we may be able to determine whether these changes were significant. It turns out that this model significantly improved the goodness of fit: $L^2 = 70.7$ ($p = 0.236$) with 63 degrees of freedom. The good fit of the model indicates that the changes in the form of class voting did not differ for the two distinguished education levels; therefore, there was no need to take into account the additional τ_{jkm}^{VCTE} parameters accounting for the interaction among all four variables.

Table 10.6 presents a comparison of interaction parameters τ_{ij}^{VC} for two models: without and with (values in parentheses) education considered. Values of these parameters indicate whether a specific interaction occurs more frequently (values greater than 1) or less frequently (values smaller than 1) than in the hypothetical situation of no relationship between socio-occupational affiliation and voting. It turns out that the majority of parameters in the model, which takes education into account, are closer to 1. We may therefore conclude that for these combinations of socio-occupational affiliation and political preferences, the relationship weakens once education is taken into account. Still, this does not concern all parameters and, moreover, the decrease in the strength of this relationship is rather small.

Table 10.6. Parameters of class voting* without and with (in parentheses) control for education

Socio-occupational groups	SLD/UP	UD/KLD/ UW/PO	Right- wing parties	PSL
High-level managers, professionals, specialists	1.47 (1.45)	1.66 (1.48)	0.72 (0.79)	0.57 (0.59)
Low-level non-manual employees and business owners	1.16 (1.16)	1.38 (1.29)	1.10 (1.15)	0.57 (0.58)
Manual workers	1.10 (1.12)	0.78 (0.85)	1.30 (1.21)	0.90 (0.88)
Farmers	0.53 (0.54)	0.50 (0.55)	0.98 (0.92)	3.47 (3.38)

*Parameters τ_{ij}^{VC} describing the general relationship between *V* and *C* in the period under study.

Overall, I find that socio-occupational affiliation affects the voter's political preferences aside from education. Although, as the values of the parameters in Table 10.6 indicate, education is a significant factor, one may—for instance—expect that the support of professionals and specialists and other non-manual workers for the parties of the SLD/UP and UD/KLD/UW/PO blocs is caused to some extent by the fact that these individuals are better educated but that even so, this relationship involves additional factors. It is quite possible that if more education levels were taken into account, this conclusion would actually be different.

VOTER ABSTENTION

According to the hypothesis, the relationship between deciding whether to vote and social position should be weakening. If in the 1990s, voter abstention was more likely to have structural causes, in subsequent elections it could have resulted from citizens' general disillusionment with political parties, which was reflected in lower voter turnout.

To answer the question of whether the strength of the relationship between socio-occupational affiliation and voter abstention decreased, or increased, from 1991 to 2011, I applied Unidifference Model 6, replacing the political preferences (V) in it with a binary division of respondents into those who voted and those who did not. The model under consideration assumes no changes in the form of the relationship between V and C, but it allows for a change in its strength. Its goodness of fit is satisfactory: $L^2 = 26.8$ ($p = 0.31$) with 24 degrees of freedom. Parameters indicating the strength of the relationship in consecutive years of study are the following: $\Phi_{1991} = 1.0$; $\Phi_{1993} = 1.05$; $\Phi_{1997} = 0.66$; $\Phi_{2001} = 0.88$; $\Phi_{2005} = 0.82$, $\Phi_{2007} = 1.16$, $\Phi_{2011} = 0.99$. It is worthwhile to notice that the model assuming constancy of this relationship over time is also acceptable: $L^2 = 35.8$ ($p = 0.21$) with 30 degrees of freedom. Temporal changes concerning the voter abstention and socio-occupational affiliation are not statistically significant; therefore, the hypothesis concerning the weakening of class voting over time was not confirmed.

The parameters shown in Table 10.7, established on the basis of Model 5, confirm the results presented in the first part of this chapter (Tables 10.3 and 10.4) indicating that voter abstention is more frequent among farmers and

Table 10.7. Parameters of the relationship between participation in elections and socio-occupational affiliation in models not accounting and accounting (in parentheses) for education

Participation in elections	Socio-occupational group					
	High-level managers, professionals, specialists	Low-level non-manual employees	Business owners	Skilled workers	Unskilled workers	Farmers
Non-voters	0.59 (0.69)	0.93 (1.00)	0.94 (0.96)	1.18 (1.09)	1.34 (1.26)	1.20 (1.10)
Voters	1.68 (1.44)	1.07 (0.99)	1.06 (1.04)	0.85 (0.91)	0.74 (0.80)	0.83 (0.91)

manual workers. They also demonstrate that the most participatory voters are members of the group of professionals and specialists.

Other analyses indicate that education has a significant impact on voter abstention (Czeńnik 2007; Przybysz 2004). As in the analysis concerning the vote for specific political parties, we may ask whether, after controlling for level of education, the relationship of voter abstention to socio-occupational affiliation remains significant. We need to check whether the fact that voter participation is more frequent among professionals and specialists, while being less frequent among manual workers, has other causes beyond the fact that these two groups differ with respect to education.

To answer this question, we tested a model assuming that socio-occupational affiliation and participation in elections are independent on each of the considered education levels (see Model 7). As in the previous analysis, we considered just two education levels: (i) elementary and incomplete secondary (together with basic vocational), and (ii) secondary, incomplete tertiary, and tertiary. This last model turned out to be unacceptable: $L^2 = 221.2$ ($p < 0.0001$) with 70 degrees of freedom. Moreover, an analysis taking into account four education levels—1) elementary, 2) incomplete secondary (together with basic vocational), 3) secondary, and 4) incomplete tertiary and tertiary—provided similar results: $L^2 = 278.7$ ($p < 0.0001$) with 140 degrees of freedom.

However, a model assuming a relationship between socio-occupational affiliation and participation in elections that is constant over time (controlling for education) provides a satisfactory fit: $L^2 = 80.0$ ($p = 0.089$) with 65 degrees of freedom. Parameters of this model are provided in Table 10.7, in parentheses. Comparing the parameters of the model that takes into account the level of education with the one that does not, we see that for all socio-occupational groups, the control for education decreases the strength of the relationship between V and C (all parameters are closer to 1). This indicates that the strength of the relationship between socio-occupational affiliation and deciding to vote is, to a great extent but not completely, explained by differences in the level of education.

Comparing the data in Tables 10.6 and 10.7, the effect of controlling for education is stronger in the case of voter abstention than in the case of choosing political parties. This result suggests that the differences in participation in elections are caused primarily by citizens finding it difficult to form a personal opinion regarding political parties and choosing a party to vote for. Only to a lesser extent are differences in participation caused by differences in political interests stemming from socio-occupational affiliation.

Conclusion

Analyses presented in this chapter demonstrate that from 1991 to 2011, socio-occupational affiliation influenced voter behavior. For each election in this period, the relationship was statistically significant. There have been a number of regularities, but members of different socio-occupational groups did not all vote the same way. The most striking differences occurred between the classes of professionals and specialists and the classes of manual workers and farmers. Manual workers' political preferences differed from non-manual workers. Manual workers and farmers voted for the political right, and non-manuals voted more frequently for liberal parties (UD, UW, KLD, and PO). Analyses performed in this study confirmed the specific position of PSL and its farmer political base.

The analysis gives an ambiguous answer to the question of whether class voting was getting weaker or stronger. The analysis points out that, at the beginning, the strength of this relationship was rising and peaked in 1993, while after 2000 it was much weaker. We can theorize that the 1993 result was caused by the high social costs of the transformation in the 1990s and the political frustration of certain social groups. Manual workers are more likely not to vote at all, though there is no clear-cut trend in the relationship between voter abstention and class affiliation. Although the parameters indicating the strength of this relationship are decreasing, the differences among them are not statistically significant.

Taking education into account addressed whether class voting is merely a product of differences in the education level of various socio-occupational groups. Analyses revealed—with respect to political preferences and the phenomenon of voter abstention—that the relationship between socio-occupational affiliation and voting remained significant when controlled for education. We can only conclude that this relationship weakened, which is more visible in the case of voter abstention.

The stability of these relationships confirms the thesis that after 1989, Poland experienced class voting. However, there is no basis for the claim that Poland experienced class politics. It cannot be claimed that given classes voted for the same parties in consecutive elections; in any case, considering the fluidity of the political scene from 1991 to 2011, one would not expect such a result.

Still, it is worth considering this issue in another way. Some theories concerning voter behavior (e.g., Downs 1957; Enelow and Hinich 1984) assume that politicians voice opinions that influence their popular support and maximize their chances for an electoral win. From this we could expect that significant differences in political interests across social classes would have an impact on the formation of the political scene. In other words: large differences in the expectations of members of different socio-occupational groups should have found a reflection in salient political divisions and, consequently, increased the stability of the political scene.

However, one has to bear in mind that even if this was the case—that is, if the differences in political preferences among socio-occupational groups translated into clear divisions among political entities—this process may not yet have crystallized. Therefore, it is hard to judge whether the instability of the political scene in the period under study provided hard enough indirect evidence that the relationship between socio-occupational position and political preferences was weak in Poland. It might still be that politicians improperly diagnosed social aspirations, while the party instability was caused by weaknesses in the parties' organizational structures. Moreover, the politicians' actions could have been intended to seize quick and short-lived advantages rather than to build a consistent political program addressed to specific social groups. Hence, although one can suspect that class voting—and even more so, class politics—leads to the formation of a stable political scene, the period under study here was too short to conclude definitively that the instability of the Polish political scene indicated the lack of a relationship between socio-occupational affiliation and political preferences.

If the politicians encountered problems in diagnosing social aspirations or expectations, voters themselves might have also experienced difficulties in identifying their own political interests in programs of specific political parties. After the system change, Poles were just getting accustomed to the institutions of a democratic state; they were learning the rules guiding election campaigns. It must be noted that studies concerning class voting in Western European countries, which generally produced more unambiguous results, have had a much richer and longer tradition; usually the researcher was able to follow this phenomenon over more than 50 years. Perhaps only in a long-term perspective will the dynamics of class voting in Poland be easier to interpret.

Appendix D

**The percentages of votes received in consecutive elections by individual parties:
Official data reported by the National Elections Committee (PKW)
and respondents' declarations collected in the surveys**

Political party or election bloc of parties	PKW results	Survey results
1991 election (PGSS, 1992)		
Democratic Union (UD)	12.3	24.0
Democratic Left Alliance (SLD)	12.0	6.6
Catholic Electoral Action ^a (WAK)	8.7	3.4
Civic Agreement Centrum ^a (PC)	8.7	2.9
PSL—Program Alliance (PSL—SP)	8.7	4.9
Confederation of Independent Poland ^a (KPN)	7.5	7.3
Liberal Democratic Congress (KLD)	7.5	7.7
PSL—People's Agreement (PSL—PL)	5.5	3.1
Independent Self-Governing Trade Union "Solidarity" ^a (NSZZ "S")	5.1	8.4
Voter turnout	43.2	52.6
1993 election (PGSS, 1994)		
Democratic Left Alliance (SLD)	20.4	16.1
Polish People's Party (PSL)	15.4	16.4
Democratic Union (UD)	10.6	12.6
Labor Union (UP)	7.3	7.3
Motherland ^a (<i>Ojczyzna</i>)	6.4	3.2
Confederation of Independent Poland ^a (KPN)	5.8	5.1
Nonpartisan Bloc of Reform Support (BBWR)	5.4	3.6
Independent Self-Governing Trade Union "Solidarity" (NSZZ "S")	4.9	6.1
Centrum Agreement ^a (PC)	4.4	2.6
Liberal Democratic Congress (KLD)	4.0	4.3
Voter turnout	52.1	57.4

Political party or election bloc of parties	PKW results	Survey results
1997 election (PGSS, 1997)		
Solidarity Electoral Action ^a (AWS)	33.8	36.8
Democratic Left Alliance (SLD)	27.1	21.4
Freedom Union (UW)	13.4	15.6
Polish People's Party (PSL)	7.3	6.9
Poland Renewal Movement ^a (ROP)	5.6	2.7
Labor Union (UP)	4.7	5.3
Voter turnout	47.9	57.6
2001 election (ESS, 2004)		
Democratic Left Alliance–Labor Union (SLD–UP)	41.0	47.0
Polish People's Party (PSL)	9.6	9.1
Civic Platform RP (PO)	12.7	14.1
Self-Defense RP (<i>Samoobrona</i>)	10.2	11.5
Law and Justice ^a (PiS)	9.5	9.6
League of Polish Families ^a (LPR)	7.9	8.3
Solidarity Electoral Action (AWS)	5.6	3.2
Voter turnout	46.3	58.6
2005 election (ESS, 2006)		
Law and Justice ^a (PiS)	27.0	38.4
Civic Platform RP (PO)	24.1	26.4
Self-Defense RP (<i>Samoobrona</i>)	11.4	7.9
Democratic Left Alliance (SLD)	11.3	8.0
League of Polish Families ^a (LPR)	8.0	2.0
Polish People's Party (PSL)	7.0	2.6
Polish Social-Democracy (SDPL)	3.9	0.6
Voter turnout	40.6	61.7
2007 election (ESS, 2008)		
Civic Platform RP (PO)	41.5	49.5
Law and Justice ^a (PiS)	32.1	32.3
Left and Democrats ^b	13.1	7.9
Polish People's Party (PSL)	8.9	6.6
Self-Defense RP (<i>Samoobrona</i>)	1.5	2.1
League of Polish Families (LPR)	1.3	0.9
Voter turnout	53.9	73.0

Political party or election bloc of parties	PKW results	Survey results
2011 election (ESS, 2012)		
Civic Platform RP (PO)	39.2	41.3
Law and Justice ^a (PiS)	29.9	28.4
Palikot's Movement	10.0	3.6
Polish People's Party (PSL)	8.4	5.8
Democratic Left Alliance (SLD)	8.2	6.5
Voter turnout	48.9	69.2

^a Parties classified as "right-wing"

^b Coalition Election Committee: the Democratic Left Alliance (SLD), Social Democracy of Poland, Labor Union, and the Democratic Party—*demokracy.pl*.

Conclusion

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The guiding question of all inequality research is, in Lenski's famous (1966) formulation, "Who gets what and why?" Our book is based on the premise that we need to know "who controls what" to answer this question for modern societies, including Poland. We focus on both social class and social stratification, and we argue that the two, while related, should be treated as analytically distinct phenomena. We define classes as occupationally based groups that maneuver within the economic markets and that revolve around ownership relations and control over labor and skills. Social stratification is the existence of structured inequality among persons with respect to generally desired goods. To the extent that social class position impacts the chances to obtain such goods, stratification is a consequence of the class structure.

These ideas stem from, and carry forth, the arguments of the Warsaw School of studying social class and stratification, which originated in mid-20th century Polish sociology. We applied them to examine long-term changes to Poland's social structure using quantitative analyses of social surveys that explicitly link the State Socialist era to current times. Ours is the first comprehensive work to do this for Poland.

Throughout the four parts of the book—Class and Stratification (Part I), Mobility and Attainment (Part II), Occupational Differentiation (III), and Class Analyses (Part IV)—we presented theoretical points and empirical illustrations of social change and enduring inequalities in Poland. Here we address the main questions we posed in the introductory chapter.

Class and Stratification

We start with the questions: *What impact has the economic and political system in different periods had on the class structure? How does the relationship between class and stratification change over time?*

The first point to remember is that Poland has experienced ongoing radical social change since the early 20th century. Poland re-emerged as a country after World War I, fought World War II, underwent State Socialism, overthrew the communist party in 1989, transitioned to a modern democratic and capitalist society, and became a prominent EU member state. In addition to war and revolution, the forces of industrialization, urbanization, and globalization transformed Poland and its relationship to the world economy.

Class and stratification pervaded all this radical social change, even when there was a concerted effort—for example, by the communist party—to minimize them. After World War II, the capitalist class structure of Central and Eastern Europe was replaced with a socialist-specific one, distinctive for (a) its nationalization of economic assets by the state, and (b) the political segmentation of the labor market due to government-controlled central economic planning. These key features of socialism drastically reduced the importance of ownership of the means of production for class distinctions.¹ Social classes responsible for overseeing the work process—that is, how economic state directives were implemented for “the good of the people”—became increasingly salient. Control over the use of the means of production and over labor superseded ownership as a main class criteria.

The class structure in Poland’s socialist era comprised managers, non-manual workers, first-line supervisors, the core-industry working class (i.e., workers involved in factory production), the peripheral working class (i.e., manual workers outside factory production), the peasantry, and the self-employed. Managers were also identified with the *nomenklatura*, a structural arrangement through which the communist party ensured that people who were loyal to, and often members of, the party were placed in important posi-

¹ In Poland, in contrast with most of Central and Eastern Europe, the peasantry retained ownership of the land. However, without distribution networks for their produce, peasants were beholden to the state for economic survival. Outside of agriculture, the self-employed owned means of production. They were a residual class in all socialist societies.

tions and that they carried out party directives efficiently and effectively. It enabled the party-state in Poland and elsewhere in Central and Eastern Europe to exert influence in all layers of society. At the same time, it created systemic inequalities in career opportunities, rewards, and economic and socio-political resources.

After 1989, as Poland adopted capitalist features and democratic rules that replaced the one-party system, the class structure changed again. First, in the 1990s, it was a hybrid shaped both by the legacy of the past political/economic order and by the requisites of, and opportunities afforded by, emergent capitalism. Ownership of the means of production re-emerged as an important class criterion; the classes of employers and entrepreneurs appeared. Organizational control over labor, and the resources for and competences in how to manage enterprises, continued to play major roles in class formation and differentiation.

It should be noted that after the fall of communism, significant change occurred even among the “old” elements of the class structure. For example, based on the criterion of land ownership, after 1989, the peasants continued as a class. Linkage with the free market of agricultural production means that the peasantry’s core features changed: it no longer extensively depends on the state. The peasantry has turned into a different class of farmers that need to compete on national and European markets.

By the first few years of the 21st century, Poland consolidated its democracy and had a full-fledged market economy. Significant changes occurred in the social structure among the broadly defined category of “white-collar workers,” that is, technicians and office workers. The category of specialized workers in finance, financial and banking dealings, non-governmental organizations, new information technologies, and various public services formed the category of specialists. They differ from experts based on the criterion of formal qualifications. Service sector workers constitute another increasingly salient group. They are characterized by precarious employment—non-standard, poorly paid, and unprotected. Moreover, the subdivision into highly skilled workers and the rest became more clear-cut.

On the relationship of class and stratification, we backed theoretical arguments about distinguishing class from stratification with empirical findings for both before 1989 and afterwards. For all analyzed time points between 1988 and 2013, social class was not consistently ordered along the primary dimensions of social stratification: formal education, occupational status, and income.

We documented that “who gets what and why” based on “who controls what” changed in response to Poland’s varying socio-political and economic realities. For example, real socialism raised the economic and ideological relevance of the working class in mining and heavy industry, while reducing that of employers and entrepreneurs. The economic fortunes of the intelligentsia and peasantry also changed as a result of political decisions of the one-party state. The post-communist transformation after 1989 quickly separated “winners” (primarily entrepreneurs, managers, and experts) from “losers” (mainly manual workers and farmers). Insufficient adaptation to the changing conditions of the emergent capitalist economy and to the democratization of the political system exacerbated this gap.

Mobility and Attainment

Our second major question is about the relationships between social origins and social destinations, which are the foundation of mobility and attainment research. *How did the relationship between social origins and social destinations change over time? How did radical social change impact class mobility and educational attainment?*

Imagine social mobility in the following way: at the outset, we find ourselves in a concrete social class and are confronted with a variety of new classes, to which we can transition at different times. At the end of the process, the important considerations are the classes to which we moved, and those to which we did not. Consider, too, the pace and scale of social change. Usually, social mobility is examined within the framework of a single socioeconomic system within a relatively stable class structure. In Poland, within one generation, social mobility developed under very different conditions. From late State Socialism to the post-communist era, Poles moved between social positions specific to two different socioeconomic systems. We found that members of certain social classes of the late socialist era had much lower chances of changing their class during the social transformation compared with all other “initial” social classes taken together. For example, members of the core-industry working class before 1989 had significantly lower chances of becoming employer-entrepreneurs, managers, experts, and technicians and office workers than members of other social classes of the same initial time.

From the late socialist era to circa 2005, we showed, intergenerational mobility rates rose only among women. This may be attributed to a delayed

modernization of the Polish occupational structure. We found no unidirectional change in the social origin-education link or in relative mobility, considered in terms of the association between origin and destination. Beginning with the late 1990s, for men at higher educational levels, the origin-destination association generally increased. We also showed that over the last decades, the association between education and occupational position has consistently declined.

Class differences in educational attainment are in relation to social change and to the accompanying school reforms. The research paradigm that informs our findings originated from empirical studies that demonstrated stable inequalities in educational attainment over long periods of time, including years of world educational expansion in the second half of the 20th century. These findings were summarized by Shavit and Blossfeld (1993), who formulated a pervasive thesis about the persistence of educational inequalities in spite of profound social changes and far-reaching school reforms. The thesis gained both opponents and supporters. The opponents argued that the inequalities in education decline when the class barriers diminish, and that this is a consequence of economic development and general improvement of living standards (Breen et al. 2009; Erikson and Rudolph 2010; Marks 2014). The supporters of the stability thesis do not deny that economic development had consequences for social stratification. Instead, they demonstrate that when class barriers exist, school reforms, no matter how strong, cannot reduce inequalities in education. The arguments come from countries where school reforms concentrated on improving access to education for disadvantaged classes. These studies generally show the same story: When a reform eliminates some class barriers in schools, new barriers emerge and preserve existing inequalities (Holm et al. 2013; Ichou and Vallet 2011; Tieben and Wolbers 2010). More radical authors argue that school reforms never reduce the inequalities in education, because there is no way to convince upper-class parents to stop supporting their children in their school careers. It means that the inequalities are located outside of school; only programs addressed directly to poor families, bypassing the school, reduce differences in educational opportunities (Heckman, Humphries, and Kautz 2014).

Our study of Poland provides further arguments in the discussion of the role of education in maintaining social inequalities. In Poland, a far-reaching middle-school reform and the dramatic expansion of education at the secondary and tertiary levels were not entirely reflected in empirical studies that tracked changes in the impact of social origins on educational attain-

ment. After two decades of economic and social transformation, the differences in educational attainment related to social origin remained the same as they were in the 1960s, 1970s, and 1980s, when more than half of young people enrolled in basic vocational schools, only to later work in factories and state agricultural farms and fulfill the goals of the centrally planned socialist economy. After 1989, more than half of young people graduated from colleges and universities. The educational opportunities for all rose in an unprecedented way. This does not mean that everyone benefited to the same extent. Education may be considered as a positional good (Di Stasio, Bol, and Van de Werfhorst 2015), which means that its value should be related to education levels reached by others. The positional nature of education partly explains why, in the face of the great expansion of schooling, social origin maintains its previous impact on educational attainment.

Inequalities in education are revealed not only by the highest level of school completed but also by the quality of education (Lucas 2001; Shavit, Arum, and Gamoran 2007). We referred to horizontal inequalities in education that resulted from differences in the quality of education offered by schools, and by dividing into tracks the secondary and post-secondary schools to measure how background characteristics determine a track selection. There is strong evidence that it does not cover all the differences in school quality. During the two decades of social and economic transformation in Poland, the number of students in tertiary institutions increased five times. At the same time, the number of faculty members increased by half. This must be reflected in the quality of higher-education diplomas. At the middle-school level, the variance of performance between schools increased in big cities from 24 percent in 2002—when the middle schools were established—to 45 percent in 2012. Schools in Poland are becoming more and more diversified; this creates new channels for social mobility. Further studies are required on new manifestations of educational inequalities and their role in maintaining the sustainability of social stratification.

We empirically examined the determinants of educational inequality before and after 1989. We broke down the overall effect of parental class and of education into effects of given class positions and of levels of educational attainment. We examined pupils' chances of success or failure of attaining particular educational thresholds.

We found that the origin-destination link observed before 1989 remained stable afterward. Well before 1989, class background played a significant role in creating both educational and occupational inequality. In

State Socialist Poland, those with a father who was an unskilled manual worker or a farmer were more likely than children of low-level non-manual workers to take up a manual labor job, or even to stay out of the labor market altogether, versus continuing to post-secondary education. Compared to people from low-level non-manual worker families, Poles whose fathers were professionals were more likely to enter post-secondary schooling.

In the 1990s, the impact of the mother's education on the odds that their children would complete secondary school grew strong. Also after 1989, managers and business owners exerted a significantly strong effect on the likelihood of moving from secondary to post-secondary school. Children of managers were especially likely to complete secondary schooling. In terms of the likelihood of going on to post-secondary education, children of skilled manual workers were better off than children of lower-level non-manual workers.

Occupational Differentiation

One of the most important problems discussed in Polish sociology has been the relationship between class structure and occupational differentiation. Generally, *what is the role of occupational differentiation in maintaining social inequality?* Studies of occupations in Poland date back to before World War II. These studies, some of which continue to the present, offer a striking example of the impact of social change on inequalities.

Historical analyses have shown that in Poland in 1918–1939, occupational groups from the same social class differed only slightly with respect to unequally distributed social goods and values, while occupational groups from different social classes varied quite distinctly. During State Socialism, occupational differentiation became increasingly important: there was more internal class differentiation and less external class differentiation than before. Hierarchies of occupations according to general skills, complexity of work, job autonomy, material remuneration, and prestige confirmed these findings. We also know that a congruence of occupational hierarchies according to various criteria increased in the market economy.

Is the occupational hierarchy stable over time? It is worth noting that occupational prestige used to be, particularly in the 1960s and 1970s, one of the most empirically studied aspects of stratification in modern societies. The interest in these studies diminished after Treiman's (1977) book demonstrating the "great cross-national invariance" in how people rank occupations. However,

we believe it is worthwhile to examine how stable the prestige hierarchy is over time, especially in societies subject to fundamental systemic changes.

Using 50 years worth of occupational prestige data in Poland, we showed that even prestige hierarchies that generally are very stable changed. From the late socialist era to the present, there has been a radical decline in the esteem of occupations linked with politics and high public office. Note, too, that Polish society has a rather low level of consensus in individual prestige assessments. Of course, we found over-time consistency in prestige rankings of many occupations. From 1958 to 2008, professionals and specialists were ranked highest. Poles consistently held in low esteem occupations that require no special skills and involve little complexity, such as construction workers, agricultural laborers, and routine office workers.

Poland is a good example of a country where, in addition to the stability of the overall hierarchy, we observe interesting shifts in the ranking of particular occupations, such as those involving politics. It would be interesting to examine the rankings of occupations that appeared on the labor market in recent decades due to technological developments. Is the ranking of a computer analyst today comparable to that of a specialist in physics in the 1950s? What about the ranking of a specialist in “big data”?

Class Analyses

This book argues that class has been and still is a powerful force in Polish life. Over the past three decades, it has come to play a greater, not lesser, role in people's chances of obtaining unequally distributed goods and values. The reason is that moving from a nationalized, centrally planned economy to a private, market economy enhanced the importance of a basic class criterion: ownership of the means of production and services. At a time when Poland's average family income is rising, the rich are isolating themselves more and more, as is evidenced by gated communities and luxury spending. Class differences in life-style and psychological outlook are wide and appear to be widening.

GENDER, CLASS, AND STRATIFICATION

We turn next to gender differences in the relationship between class and stratification. We ask: *To what extent does the relationship between class and stratification differ for men and women?*

Quantitative analysis of gender differences using social surveys rose markedly after the 1990s. Before then, as with sociology in most other countries, men were the primary subjects. We note some of the major findings in this book and dwell most on a special chapter on the intersections of gender and class.

Heyns and Białecki (1993, 318–332) found that, in the socialist era, Polish women had greater odds of entering into and obtaining degrees from secondary educational institutions. Educational opportunity expanded to women across all class categories. In analyzing educational attainment, we found that, in the 1990s, gender acted consistently: women were more likely to enter and complete secondary education, net of other factors. Regarding social mobility, we showed that, from the late socialist era to circa 2005, intergenerational mobility rates rose only among women. Beginning with the late 1990s, for men, the origin-destination association generally increased on the higher (rather than lower) educational levels.

Quantitative-based literature elsewhere clearly demonstrated that women were at a disadvantage compared to men in many areas of economic life from the beginning of the post-communist era (Wong 1995; Glass and Marquart-Pyatt 2008; Simienska 2005; Krymkowski and Domański 1997). Polish women were disproportionately unemployed and low-paid. The global economic crisis provided an opportunity not only to revisit these findings in the European Union era but to apply an intersectional perspective to the Warsaw School of studying class and stratification. We empirically examined the alignment of social class with stratification in Poland before, during, and after the onset of the 2008 global economic crisis. We find that as of 2010, there was no major realignment of class and stratification in Poland as a result of the crisis. However, there were clear gender differences: during and after the crisis, women at the bottom of the class structure—specifically, manual workers and farmers—began to have significantly and objectively worse economic conditions than men and were more likely to have felt economically insecure.

CLASS AND POLITICS

Finally, we address the relationship between class and politics. We ask: *How does class align with political behavior after 1989?*

In empirical sociology, the debate continues over whether the strength of class voting has persisted or is fading (for a review, see Słomczyński and

Dubrow 2010). Some analyses for countries of the West indicate the decline of class voting (Franklin 1985; Nieuwbeerta and de Graaf 1999; Brooks, Nieuwbeerta, and Manza 2006; Jansen, Evans, and de Graaf 2013; Evans and Tilley 2012), while others argue that it is merely realigning (e.g., Scott 2002). For Central and Eastern Europe, researchers point to processes in the 1990s, such as privatization and a deepening of social inequalities that may have strengthened the relationship between class affiliation and voter attitudes (Mateju, Rehakova, and Evans 1999). We examined the strength of class voting from 1991 to 2011. The answer is ambiguous, as there was no definitive trend. Yet the relationship between socio-occupational affiliation and voting behavior was statistically significant for each election in the period 1991–2011. We examined non-voting, too. Manual workers in Poland are more likely not to vote at all, though there is no clear-cut trend in the relationship between voter abstention and class affiliation.

We took into account whether class voting is merely a product of differences in education levels of various classes (Jansen, Evans, and de Graaf 2013; Jansen, de Graaf, and Need 2011; Müller 1999). With respect to political preferences and the phenomenon of voter abstention, the relationship between class and voting remained significant when controlled for education. This relationship weakened over time, which is more visible in the case of voter abstention.

The political scene has continually changed across consecutive elections, and because of that, political parties did not seem to represent consistently the interests of major socio-occupational groups. Yet the pattern of similarities and differences with respect to political preferences among socio-occupational segments is stable. On one side of the spectrum appear professionals and specialists; on the opposite are the farmers. Non-manual workers and owners are relatively close to professionals and specialists, while skilled and unskilled manual workers are close to farmers. Professionals and specialists, non-manual workers, and business owners support mainly the liberal political parties, while manual workers and farmers more often vote for the right-wing parties.

Twenty years is too short a perspective to be sure that we are witnessing a weakening relationship between class and voting. Because of instability on the political scene, it is difficult to judge whether changes in strength of class voting are related to party polarization (or convergence) along the left-right dimension (Jansen, Evans, and de Graaf 2013). The distinctive aspects of the

Polish political scene limit the possibility of comparing our analytical results with those in other countries.

Closing Remarks

Since the early 20th century, social scientists in Poland have investigated the transformation of the social structure in terms of class and stratification. These studies are in reaction to the major events in Poland's post-World War I history.

The discoveries of this book echo across time and space. The most radical social change does not eradicate class and stratification. When economic segmentation of the labor market is curtailed, political segmentation emerges. Social origins do not lose their influence on social destinations. Educational systems create inequalities, and disadvantaged origins beget disadvantaged destinations. Class structures change and inequalities endure.

Our theories and analyses, and likely many of our findings, should be generalizable to other countries of Central and Eastern Europe. The Warsaw School potentially has much wider applicability, but as with the relationship between class and stratification itself, it is an open empirical question.

While possible empirical generalizations could be, at least by some measures, an impressive accomplishment, we recognize that some features of social stratification systems are not only country-specific but also time-specific. History continues to inform the future. But to learn from it, we must link past and present. We encourage more empirical studies, in Poland and elsewhere, that go deep into classic issues of class and stratification and use a long-term perspective.

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